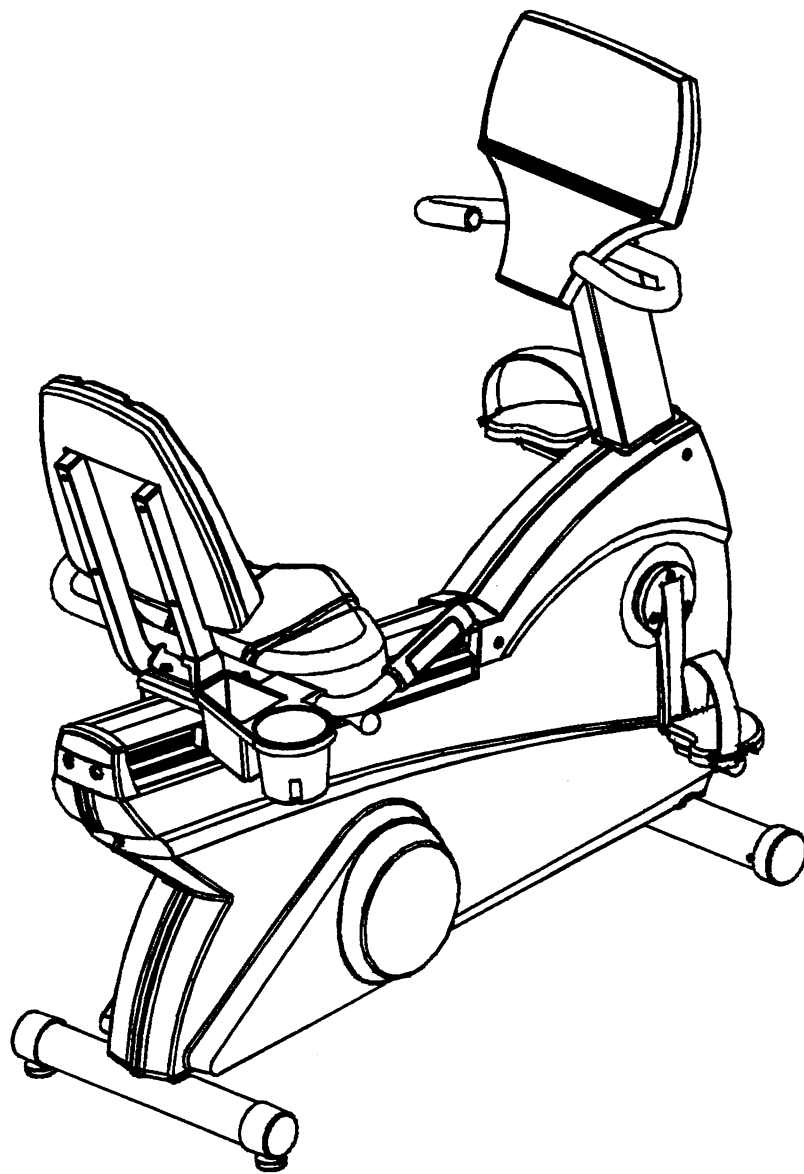


# *LifeFitness*

*Lifecycle® LC9500R, LC9100R, LC8500R,  
R9, R7 Series Bikes*



*Customer Support Services*  
**SERVICE MANUAL**



# **Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**

## **INTRODUCTION**

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This service manual is applicable to Recumbent Exercise Bikes LC9500R, LC9100R, LC8500R, R9, and R7. Information represents typical configuration and may differ slightly from actual equipment. The service manual provides recommendations for safe and efficient approaches to problem situations. This Service Manual is separated Five Sections. They are:

- SPECIAL SERVICE TOOL REQUIREMENTS
- COMPONENTS IDENTIFICATION
- TABLE OF CONTENTS
- Section I
  - TROUBLESHOOTING
- Section II
  - DIAGNOSTICS
- Section III
  - "How To..."
- Section IV
  - ELECTRONICS
  - WIRING DIAGRAMS
- Section V
  - MISCELLANEOUS

If an operating problem should arise, turn to the TROUBLESHOOTING GUIDES and attempt to isolate what is causing the malfunction. The GUIDES are listed by symptoms and follow with suggestions as to the most probable cause of the problem.

Once you have pinpointed the source of the problem, turn to the appropriate "How To..." section and review the proper procedures for removing, replacing or adjusting a part. The "How To..." sections are organized by replaceable part (or assembly) name and each page lists the "Special Tools Required" to complete the specific task.

Refer to COMPONENT IDENTIFICATION in the front part of this section to locate and identify in order service repair parts for your machine.

If you do not have a part in stock, a form to order by FAX has been included in Section V for your convenience or you can call Life Fitness Customer Support Services any Monday through Friday from 8:00 AM to 6:00 PM ( C.S.T. ). When you place a call, in order to speed our response to your particular situation, please have the following information available for the customer service phone technician who will be prepared to assist you:

1. The Lifecycle equipment model number
2. The serial number
3. The symptom of the problem
4. The part name and number to order

When you receive your order, review the appropriate "How To..." section and follow the step by step procedures designed to help you install the part quickly and correctly.

If you have any questions or comments please phone, mail, or fax us at:

**LIFE FITNESS COMPANY - CUSTOMER SUPPORT SERVICES**  
10601 Belmont Avenue, Franklin Park, IL 60131; U.S.A.  
Telephone: 847-451-0036, Toll Free: 800-351-3737, FAX: 847-288-3702

## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

### **SPECIAL SERVICE TOOL REQUIREMENTS**

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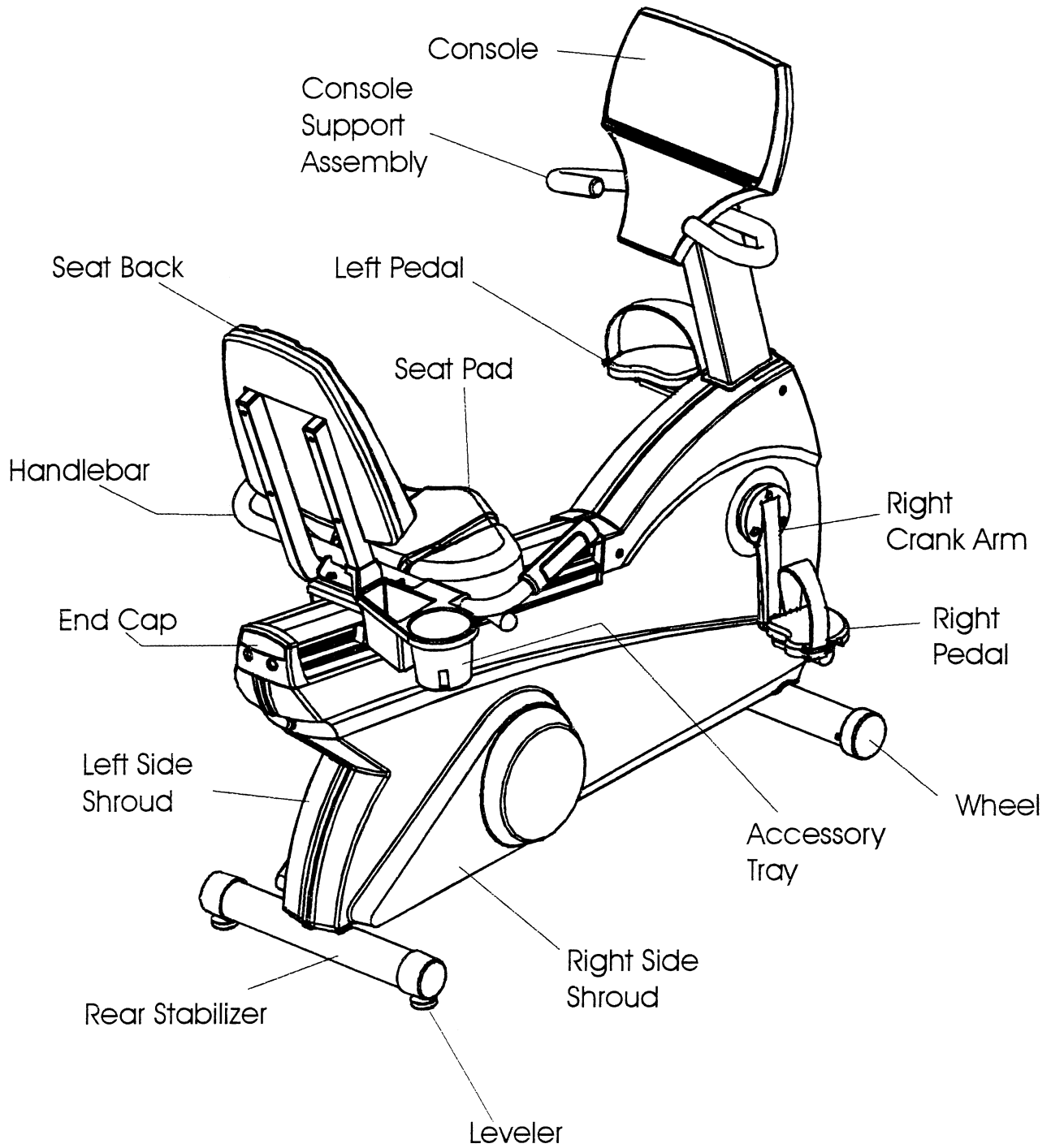
*Unless otherwise specified, only basic hand tools are required to perform service procedures outlined in this section. Some of these standard tools should consist of: Philips and Straight-Blade Screw Drivers, Torx Set, Pliers, Rubber Mallet, Pry Bar, Snap Ring Pliers (internal and external), Standard and Metric size Socket Set (3/8 or 1/2 drive), and Standard and Metric size Combination, open-end, or Box Wrenches.*

*Specialized tools will be listed after the sub-heading **Special Service Tools:**, which appears below the Service Procedure Heading at the top of the page. If no specialized tools are required, then the title would read: **Special Service Tools: NONE**, which means that standard hand tools should be employed to provide service to the product.*

*Specialized tools must be used to safely and effectively complete the service procedures. Improvisation or attempts to use any other tool could result in unnecessary damage to the equipment or personal injury.*

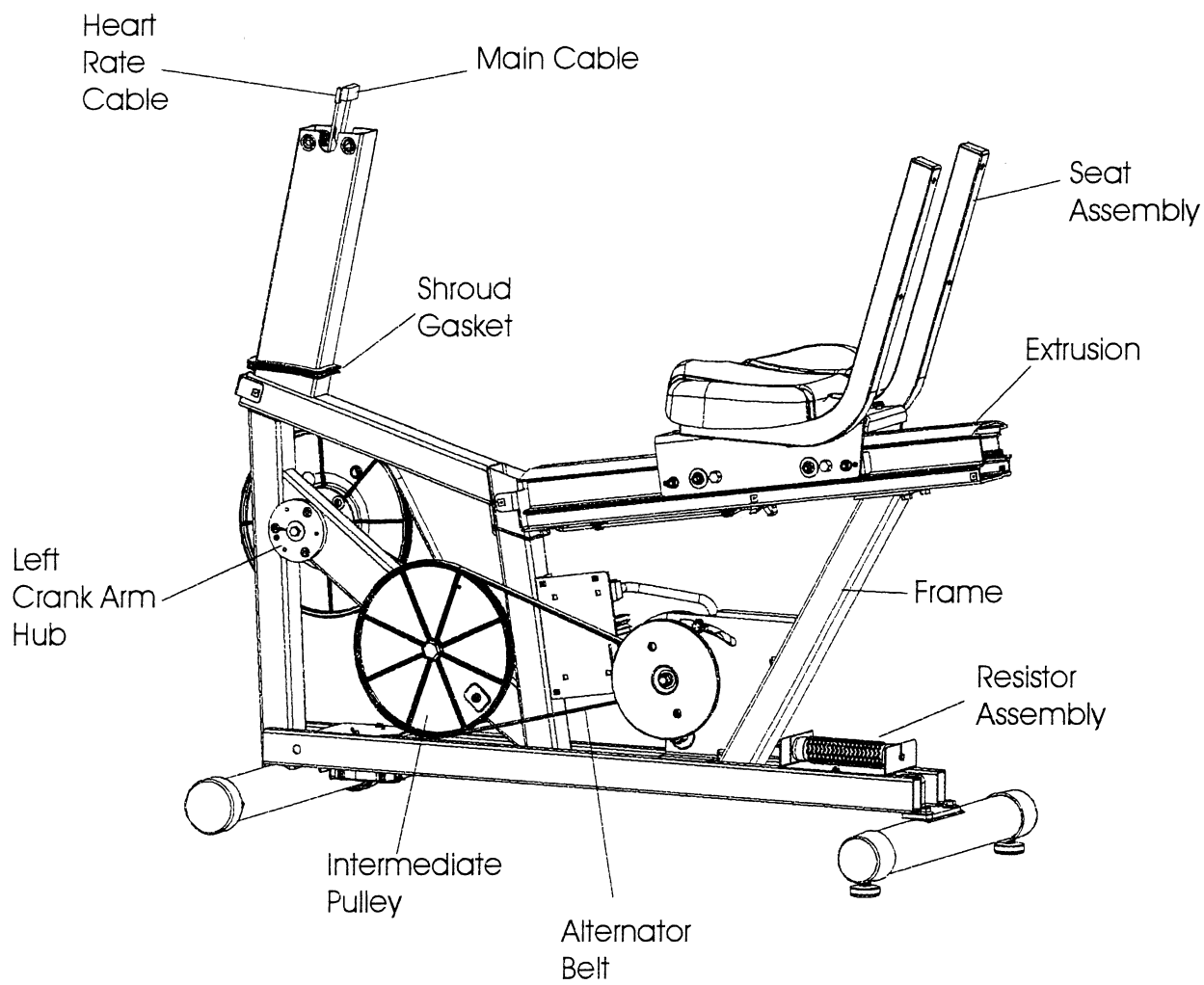
**COMPONENT IDENTIFICATION**

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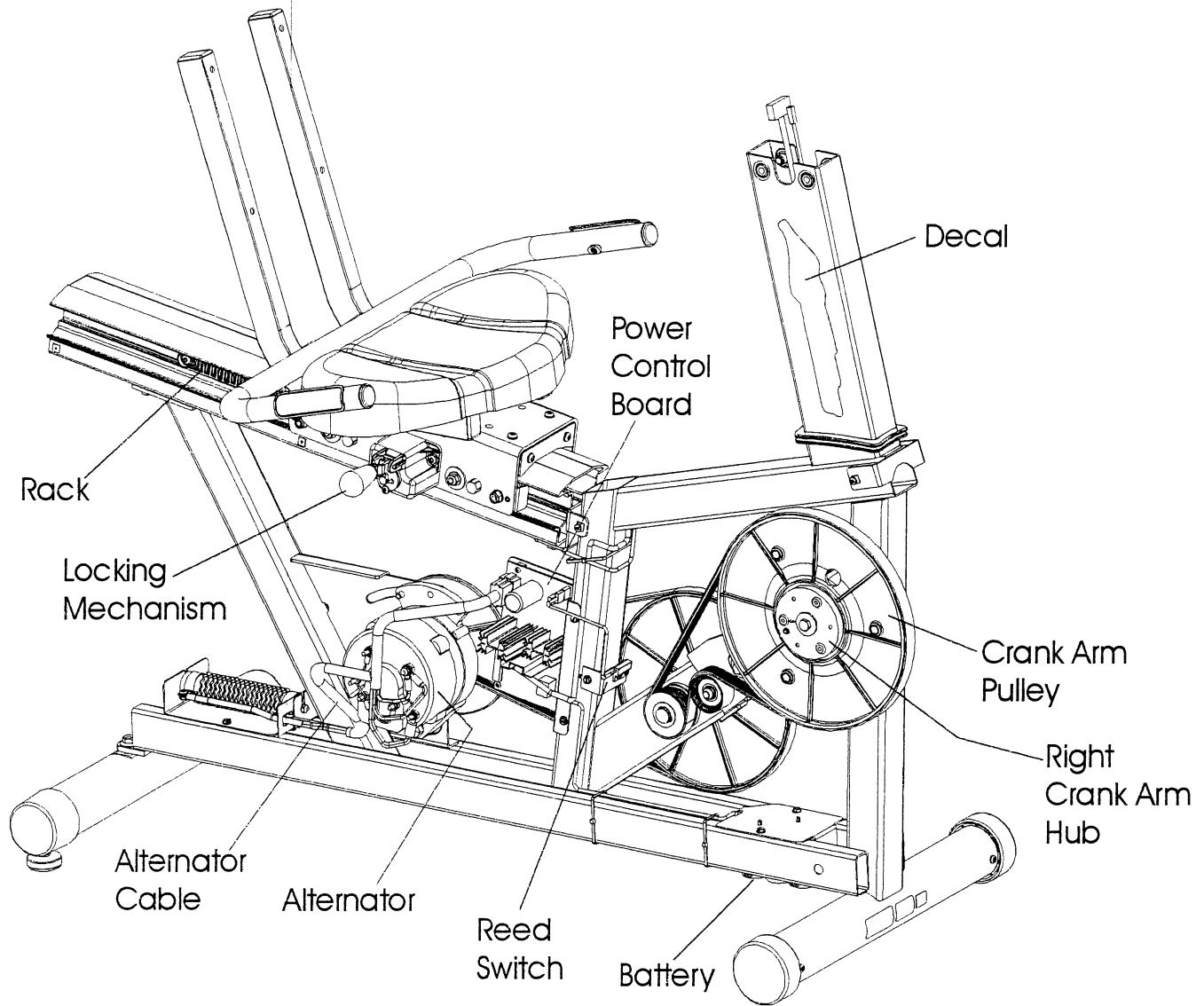
**COMPONENT IDENTIFICATION**

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## COMPONENT IDENTIFICATION

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*Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes*

**NOTES:**

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**SECTION I**

**TROUBLESHOOTING  
GUIDES**

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TROUBLESHOOTING GUIDE**

<b>Malfunction</b>	<b>Probable Cause</b>	<b>Corrective Action</b>
<b>Display Console LEDs not illuminating</b>	Auto start not responding.	Check auto start not responding.
	Keypad not responding.	Test keypad in diagnostics.
	Insufficient battery voltage.	Check battery voltage. The LC9500, LC9100, and C9i have a 6VDC battery (non-alkaline) which should test out between 5.8 to 6.3 VDC. The LC8500, and C7 has a 9VDC alkaline battery and it should test out between (8.8 - 9.2VDC).
	Loose wire connections.	Disconnect then reconnect connections.
	Worn or damaged wire harnesses.	Inspect wire harnesses. Replace worn or damaged harness.
	Malfunctioning display console.	Test with substitute display console. Replace malfunctioning display console.
	Malfunctioning alternator control board (ACB).	Test with substitute ACB. Replace malfunctioning ACB.
	<b>Display console initializes then fails</b>	Loose wire connections.
No RPM.		Enter Diagnostic and check for RPM.
Malfunctioning alternator.		Test alternator output or test with substitute alternator. Replace malfunctioning alternator. Refer to Alternator Voltage Test.
Malfunctioning alternator control board.		Test with substitute alternator control board. Replace malfunctioning board.
Malfunctioning display console.		Test with substitute display console. Replace malfunctioning display console.
Worn or damaged wire harnesses.		Inspect wire harnesses. Replace worn or damaged harness.

*Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes*

**TROUBLESHOOTING GUIDE**

<b>Malfunction</b>	<b>Probable Cause</b>	<b>Corrective Action</b>
No prompt upon release of START key. Entry of additional information not allowed.	Malfunctioning display console.	Test with substitute display console. Replace malfunctioning display console.
	Battery drained.	Replace Battery with new one.
Display Console LEDs are not constant	Pedaling too slowly	Pedal faster than 30 RPM.
	Insufficient battery voltage	Check battery voltage. The LC9500, LC9100, and C9i have a 6VDC battery (non-alkaline) which should test out between 5.8 to 6.3 VDC. The LC8500, and C7 has a 9VDC alkaline battery and it should test out between (8.8 - 9.2VDC).
	Loose wire connections	Disconnect then reconnect connections.
	Worn or damaged wire harnesses	Inspect wire harnesses. Replace worn or damaged harnesses.
	Malfunctioning Display Console	Test with substitute Display Console. Replace malfunctioning Display Console.
	Malfunctioning Alternator Control Board	Test with substitute Alternator Control Board. Replace malfunctioning board.
	Malfunctioning Alternator	Test Alternator output or test with substitute Alternator. Replace malfunctioning Alternator. Refer to Alternator Voltage Test.
Display Console LEDs do not extinguish in timely manner at the end of a workout, when the CLEAR key is pressed, or when the pedaling stops.	Software	
	Malfunctioning Alternator Control Board	Test with substitute Alternator Control Board. Replace defective board.
	Malfunctioning Display Console	Inspect for damage or depression at START key. Test with substitute Display Console. Replace malfunctioning Display Console.
Prompt persistently flashes and entry of additional information is not allowed.	Attempting to enter improper duration of time	Refer to Operation Manual for time duration requirements.
	Malfunctioning Display Console	Test with substitute Display Console. Replace malfunctioning Display Console.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
TROUBLESHOOTING GUIDE**

<b>Malfunction</b>	<b>Probable Cause</b>	<b>Corrective Action</b>
<b>Display Console keys (except START key) do not function and Exercise Bike does not respond.</b>	Attempting to enter program not available.	Refer to Operation Manual for program availability.
	Malfunctioning Keypad	Test Keypad in Diagnostics.
	Malfunctioning Display Console	Test with substitute Display Console. Replace malfunctioning Display Console.
<b>Upon start of program, excessive resistance load is immediate; no normal, incremental increase from "no load."</b>	Insufficient battery voltage	Check battery voltage. The LC9500, LC9100, and C9i have a 6VDC battery (non-alkaline) which should test out between 5.8 to 6.3 VDC. The LC8500, and C7 has a 9VDC alkaline battery and it should test out between (8.8 - 9.2VDC).
	Loose wire connections	Disconnect then, reconnect connections.
	Worn or damaged wire harnesses	Inspect wire harnesses. Replace worn or damaged harness.
	Malfunctioning Display Console	Test with substitute Display Console. Replace malfunctioning Display Console.
	Malfunctioning Alternator Control Board	Test with substitute Alternator Control Board. Replace malfunctioning board.
	Malfunctioning Alternator	Test Alternator output or, test with substitute Alternator. Replace malfunctioning Alternator. Refer to Alternator Voltage Test.
	<b>During program, excessive resistance loading occurs.</b>	Loose wire connections
Worn or damaged wire harnesses		Inspect wire harnesses. Replace worn or damaged harness.
Malfunctioning Display Console		Test with substitute Display Console. Replace malfunctioning Display Console.
Malfunctioning Alternator Control Board (ACB)		Test with substitute ACB. Replace malfunctioning ACB.
Malfunctioning Alternator		Test Alternator output or, test with substitute Alternator. Replace malfunctioning Alternator. Refer to Alternator Voltage Test.

*Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes*  
**TROUBLESHOOTING GUIDE**

<b>Malfunction</b>	<b>Probable Cause</b>	<b>Corrective Action</b>
<b>During MANUAL program, resistance variation occurs.</b>	Pedaling too slowly	Pedal faster than 45 RPM.
	Loose wire connections	Disconnect then, reconnect connections.
	Worn or damaged harnesses	Inspect wire harnesses. Replace worn or damaged harness.
	Malfunctioning Display Console	Test with substitute Display Console. Replace malfunctioning Display Console.
	Malfunctioning Alternator Control Board	Test with substitute Alternator Control Board. Replace defective board.
	Malfunctioning Alternator	Test Alternator output or, test with substitute Alternator. Replace malfunctioning Alternator. Refer to Alternator Voltage Test.
<b>During RANDOM or HILL programs, resistance is constant without variation for interval training nor hill incline/decline.</b>	Loose wire connections	Disconnect then, reconnect connections.
	Worn or damaged harnesses	Inspect wire harnesses. Replace worn or damaged harness.
	Malfunctioning Display Console	Test with substitute Display Console. Replace malfunctioning Display Console.
	Malfunctioning Alternator Control Board	Test with substitute Alternator Control Board. Replace defective board.
	Malfunctioning Alternator	Test Alternator output or, test with substitute Alternator. Replace malfunctioning Alternator. Refer to Alternator Voltage Test.
<b>Pedaling is difficult, feels restricted or, is not possible when Exercise Bike has not been started (START key not pressed).</b>	Malfunctioning Pulley Clutch Assembly	Inspect Clutch for free backward and forward rotation. Replace malfunctioning Pulley Clutch or Freewheel.
	Alternator Belt excessively tight	Inspect belt deflection. Adjust as necessary. Alternator Belt Deflection: 1/4 inch (6mm)
	Alternator Belt Alignment is OFF	Realign alternator belt to far users left groove of the alternator pulley, not in the center.
	Crank bearings worn or corroded	Replace Crank Bearings.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TROUBLESHOOTING GUIDE**

<b>Malfunction</b>	<b>Probable Cause</b>	<b>Corrective Action</b>
<b>During exercise program, pedaling is insufficiently easy, not providing adequate resistance.</b>	Pedaling too slowly	Pedal faster than 30 RPM.
	Program level doesn't challenge user ability	Select higher level.
	Loose wire connections	Disconnect then, reconnect connections.
	Worn or damaged harnesses	inspect wire harnesses. Replace worn or damaged harness.
	Malfunctioning Display Console	Test with substitute Display Console. Replace malfunctioning Display Console.
	Malfunctioning Alternator Control Board	Test with substitute Alternator Control Board. Replace defective board.
	Malfunctioning Alternator	Test Alternator output or, test with substitute Alternator. Replace malfunctioning Alternator. Refer to Alternator Voltage Test.
	Alternator Belt excessively loose	Inspect belt deflection. Adjust as necessary. Alternator Belt Deflection: 1/4 inch (6mm)
	Drive Belt excessively loose	Inspect Belt. Replace Belt.
	<b>Battery over-heating during exercise program.</b>	Battery Wires incorrectly connected
Worn Battery Wires		Inspect Wires. Replace Wires or harness.
Battery leads grounding upon frame		Inspect leads. Replace battery.
Malfunctioning Display Console		Test with substitute Display Console. Replace malfunctioning Display Console.
<b>Exercise Bike not stable upon floor.</b>	Stabilizer Foot Pads not adjusted correctly	Adjust Foot Pads.
	Floor surface not level	Position Exercise Bike upon level surface.
	Wheel(s) damaged	Replace damaged wheel(s).
	Frame damaged	Contact Customer Support Services.



**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TROUBLESHOOTING GUIDE**

<b>Malfunction</b>	<b>Probable Cause</b>	<b>Corrective Action</b>
<b>During exercise program, loud noise issuing from Exercise Bike.</b>	Non-carpeted, hard surface floor	Place Exercise Bike upon softer surfaced floor.
	Improper riding style	Change style. Do not lean excessively to either side.
	Crank Bearings worn	Inspect Bearings. Replace as necessary.
	Alternator Belt excessively loose	Inspect belt deflection. Adjust as necessary. Alternator Belt Deflection: 1/4 inch (6mm)
	Alternator Belt worn	Replace Belt.
	Malfunctioning Alternator	Operate Exercise Bike as in normal use with light and heavy load levels. Listen for excessive noise from Alternator. Replace Alternator as necessary.
	Drive Belt excessively loose	Inspect Belt. Replace Belt.
	Free-wheel Pulley Assembly	Inspect clutch for free rotation. Replace defective Freewheel Pulley Assembly.

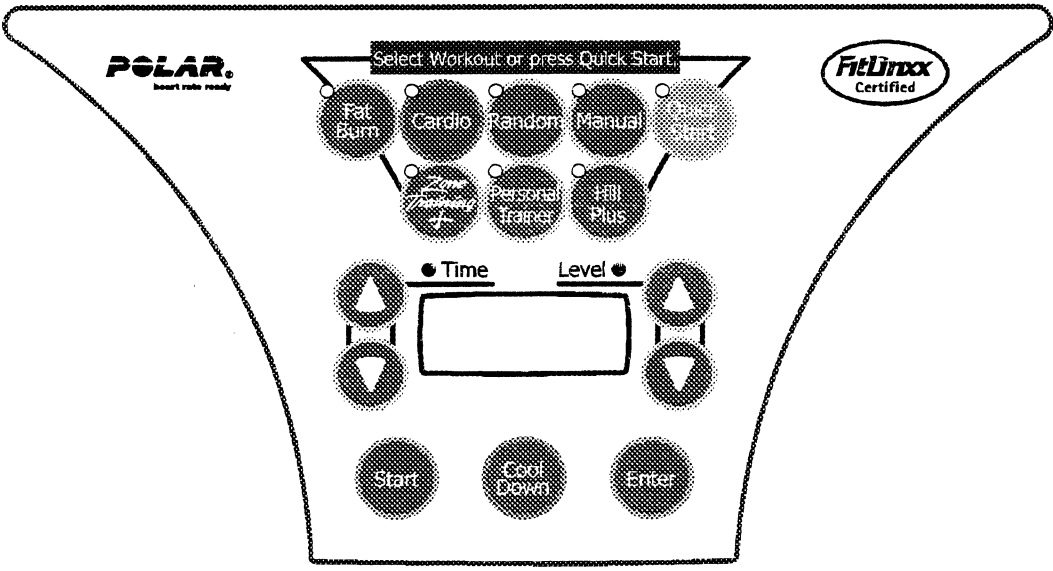
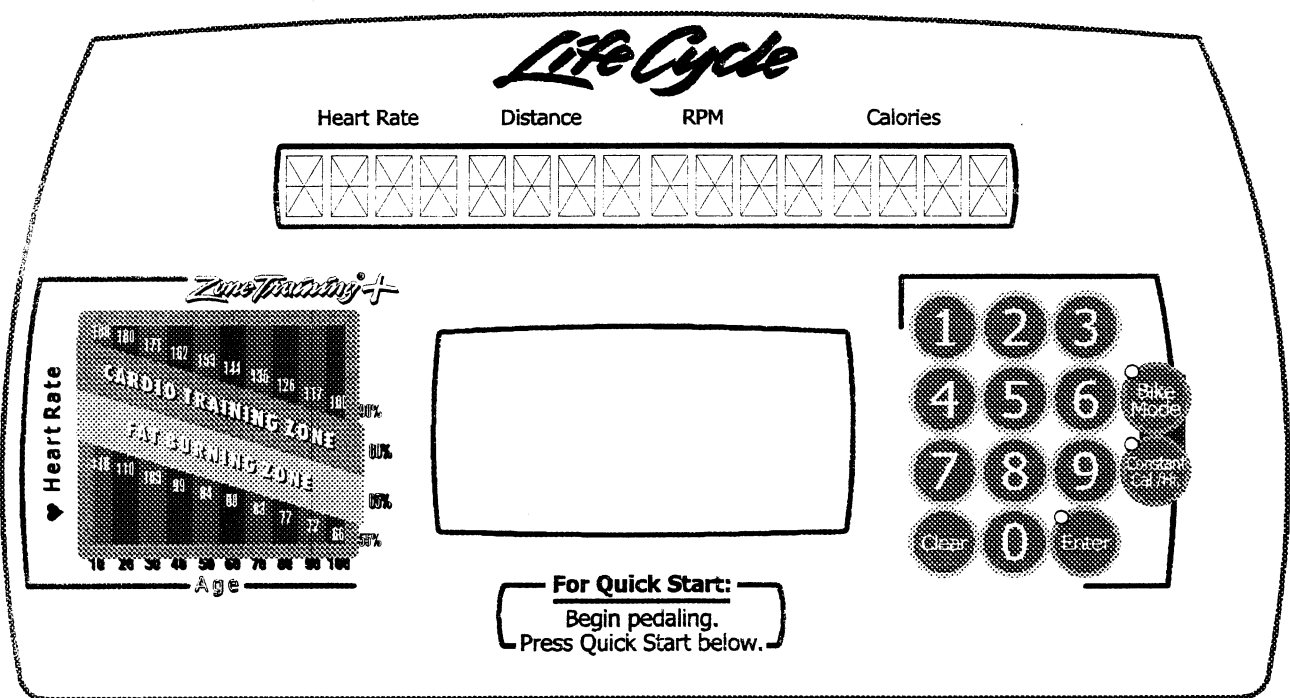
**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TROUBLESHOOTING GUIDE**

<b>Malfunction</b>	<b>Probable Cause</b>	<b>Corrective Action</b>
<b>No heart rate or, display reads (No HR).</b>	No heart rate reading	Executive Diagnostic Mode to verify performance of heart rate function.
	Faulty cable connection	Verify heart-rate cable is properly connected.  Using an ohmmeter, verify continuity at the main console cable. See wiring diagram for pin location.
	Malfunctioning Handlebar/Lifepulse Grip Assembly (include. Worn or damaged heart rate lead)	Replace Handlebar/Lifepulse Assembly.
	Life Pulse handlebar	Verify that the handlebar is functioning. See diagrams.  Using an ohmmeter, verify continuity between Lifepulse sensor and cable connection. See wiring diagram for pin location.
	Handlebar/Lifepulse Grip Assembly	Dry wipe sensors.
	Loose or malfunctioning heart rate lead connection at Display Console	Secure connection. Replace malfunctioning Handlebar/Lifepulse Grip Assembly
	Malfunctioning Display Console	Test with substitute Display Console. Replace malfunctioning Display Console.
	Excessive wear or damage to grip	Replace the handlebar assembly.

**SECTION II**

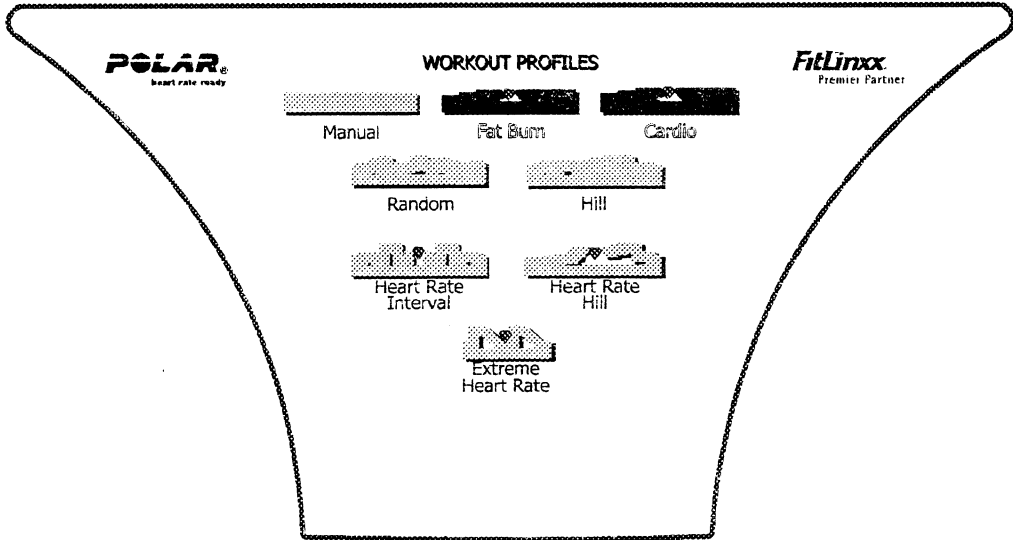
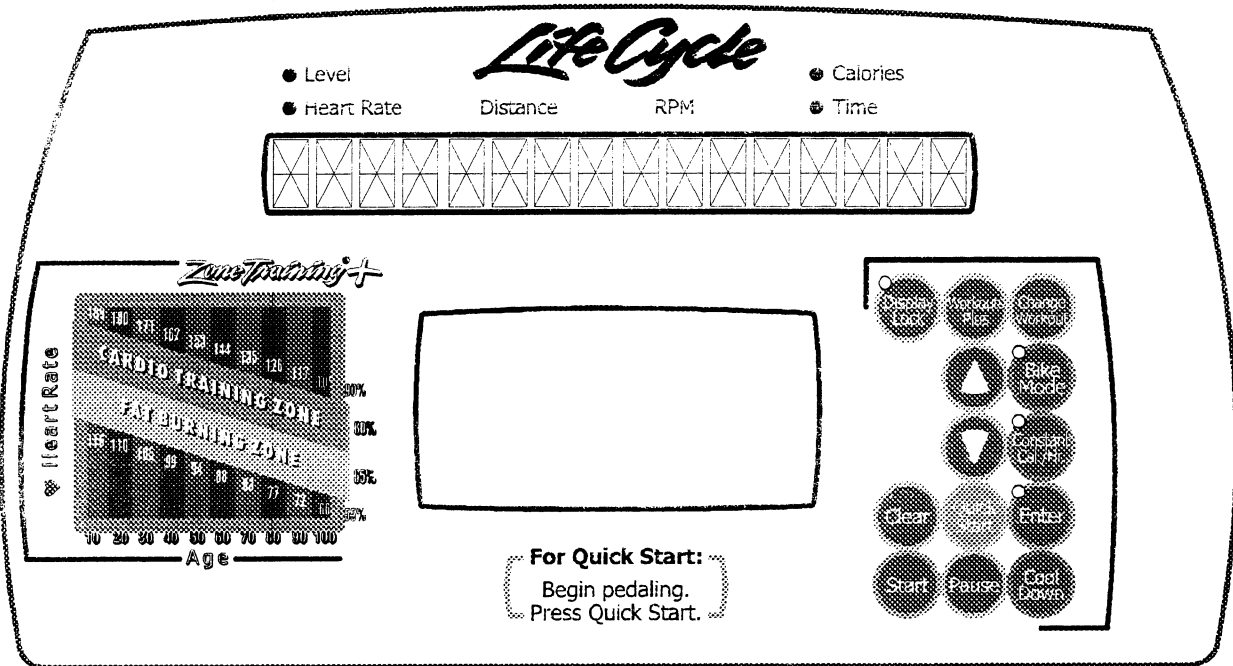
**DIAGNOSTICS**

**LifeCycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**DISPLAY CONSOLE LC95R**



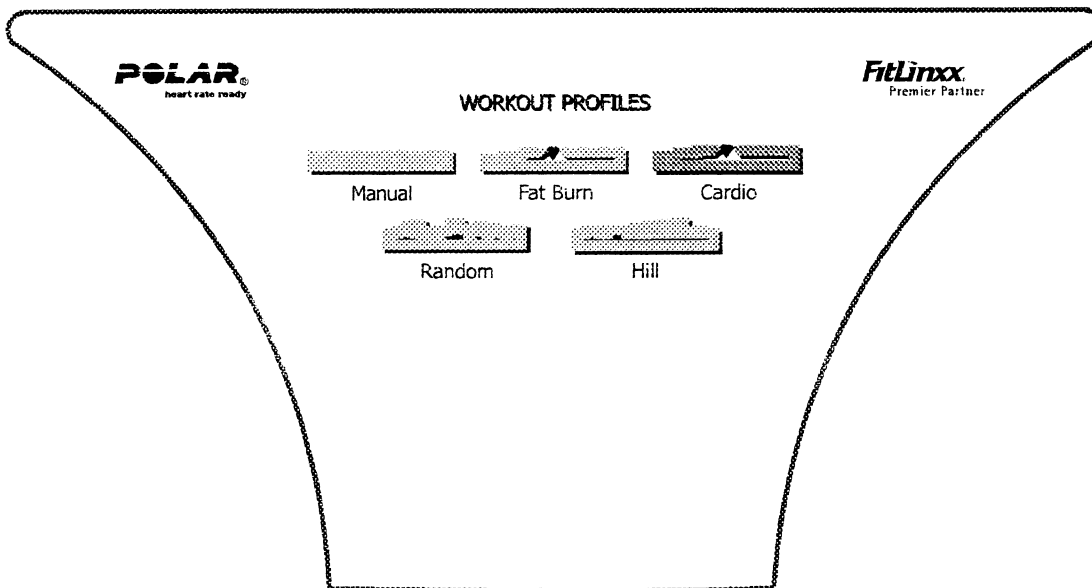
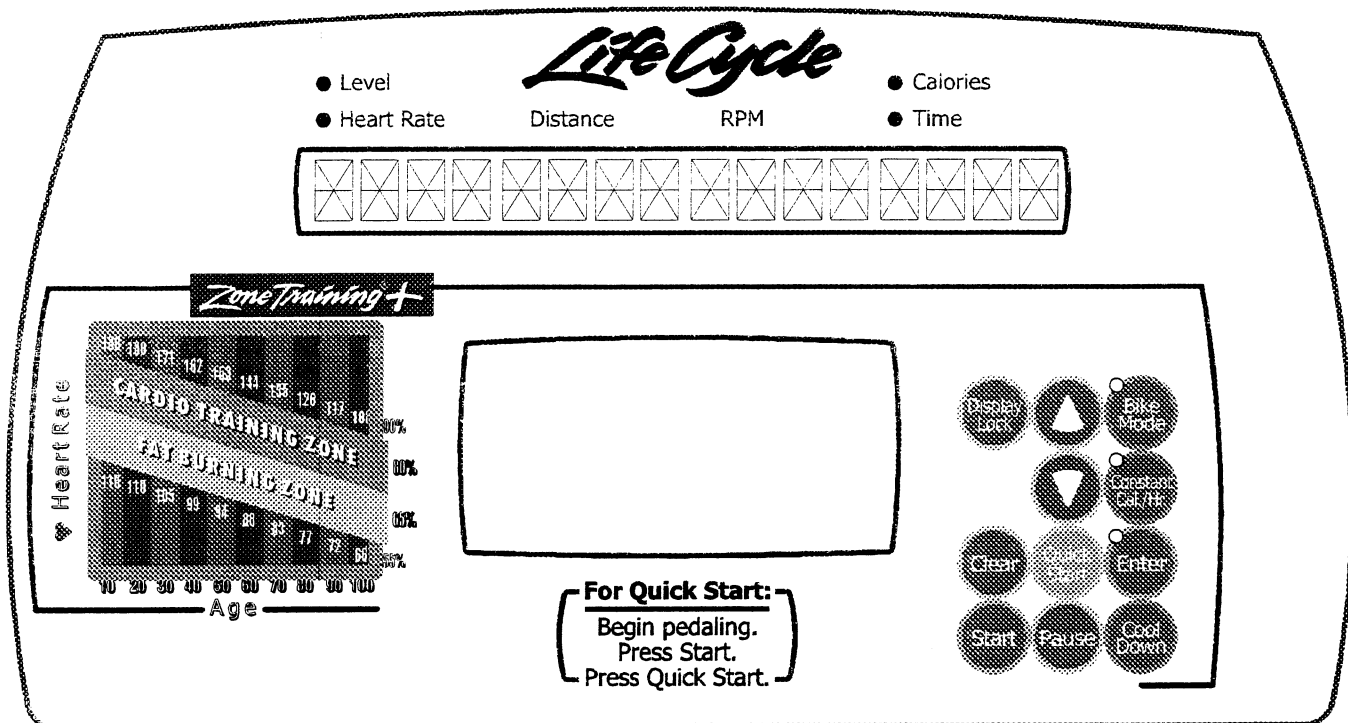
LC95R

**LifeCycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**DISPLAY CONSOLE LC91R**



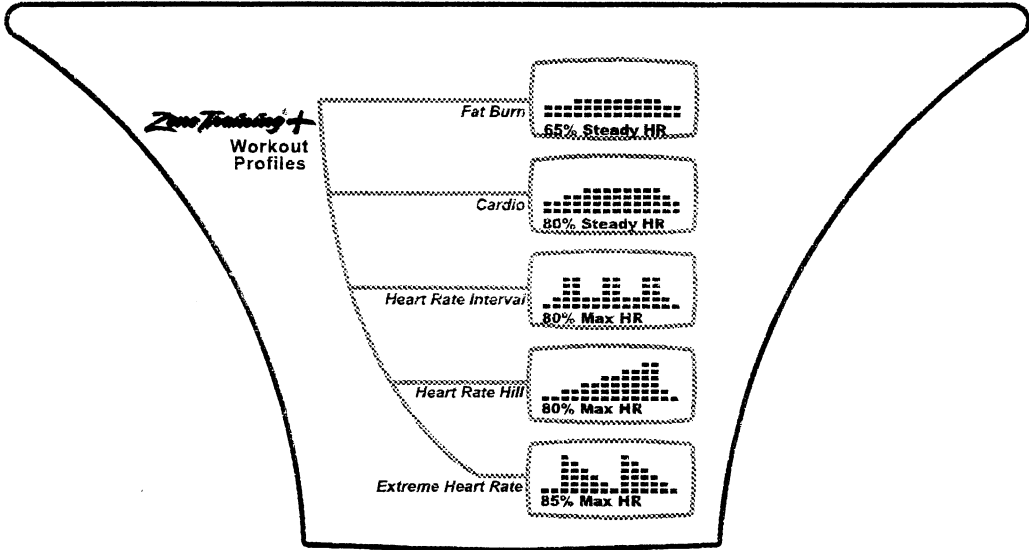
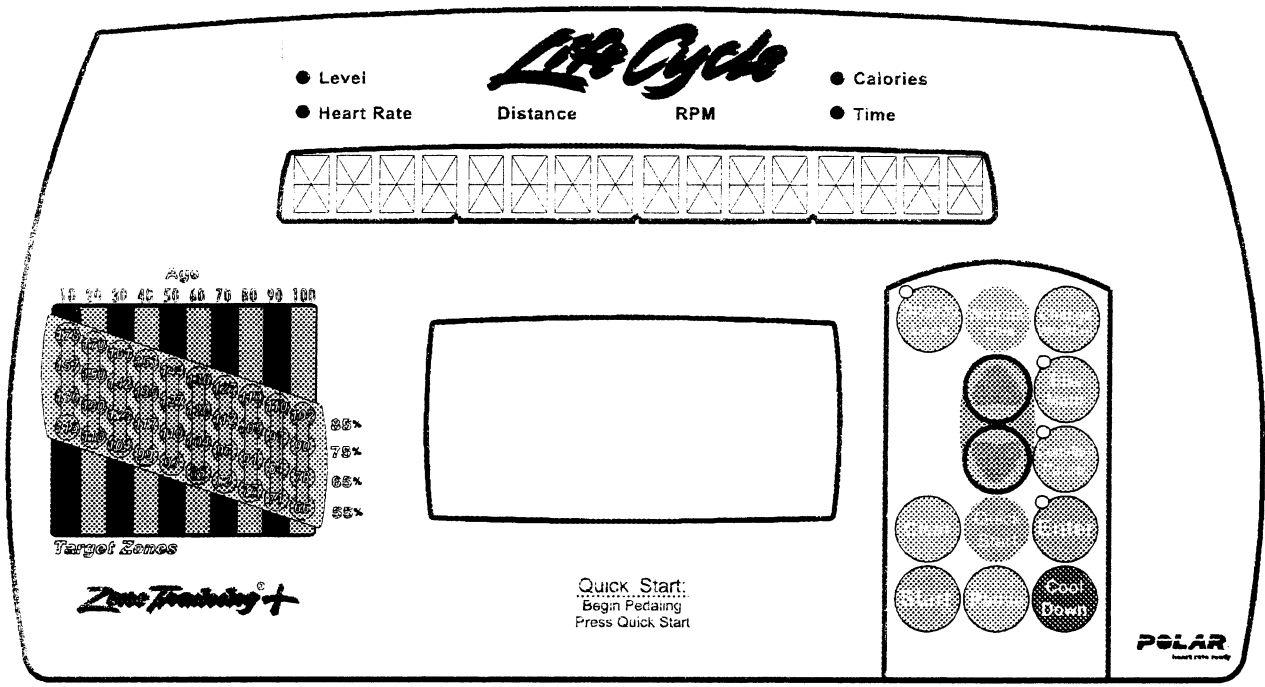
Lc91R

**LifeCycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**DISPLAY CONSOLE LC85R**



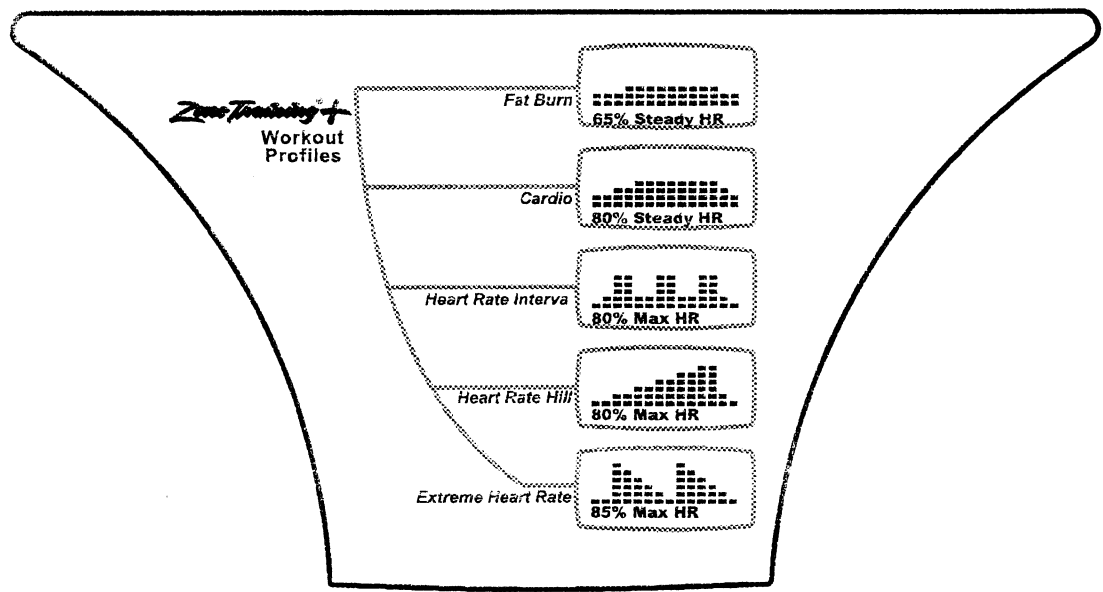
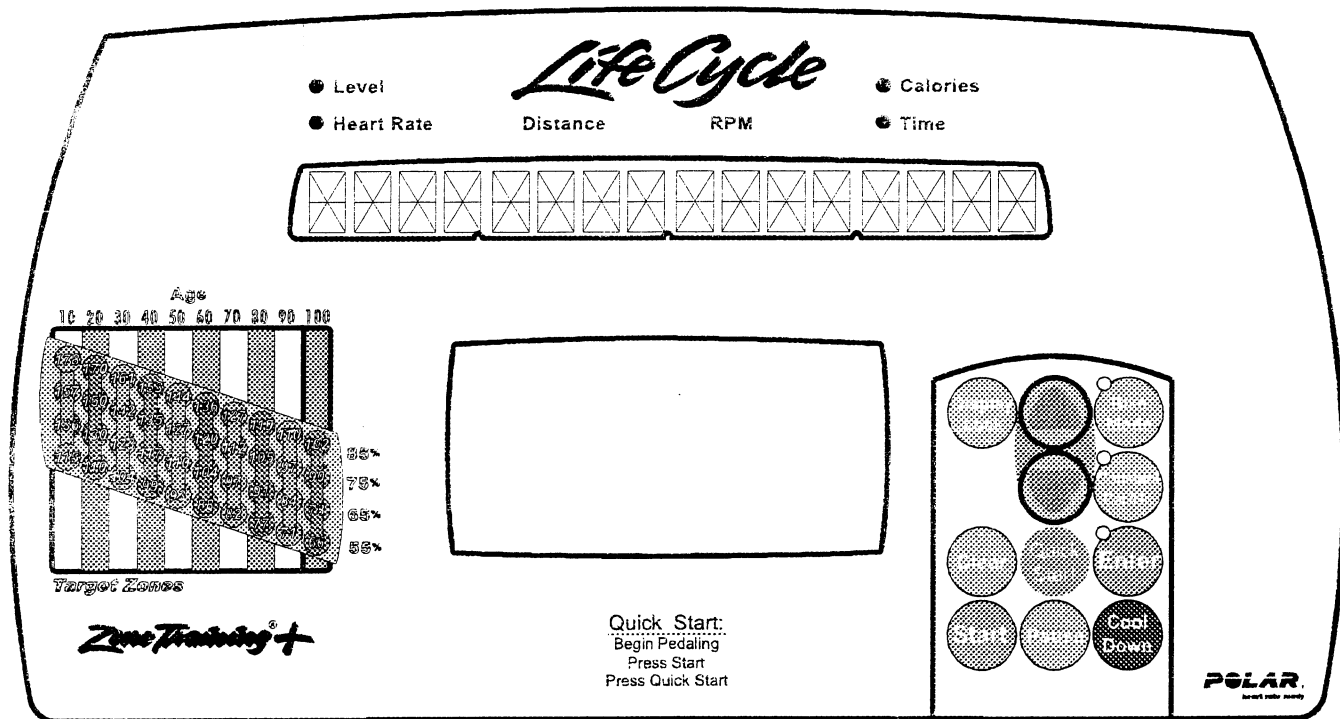
LC85R

Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
**DISPLAY CONSOLE R9**



R9

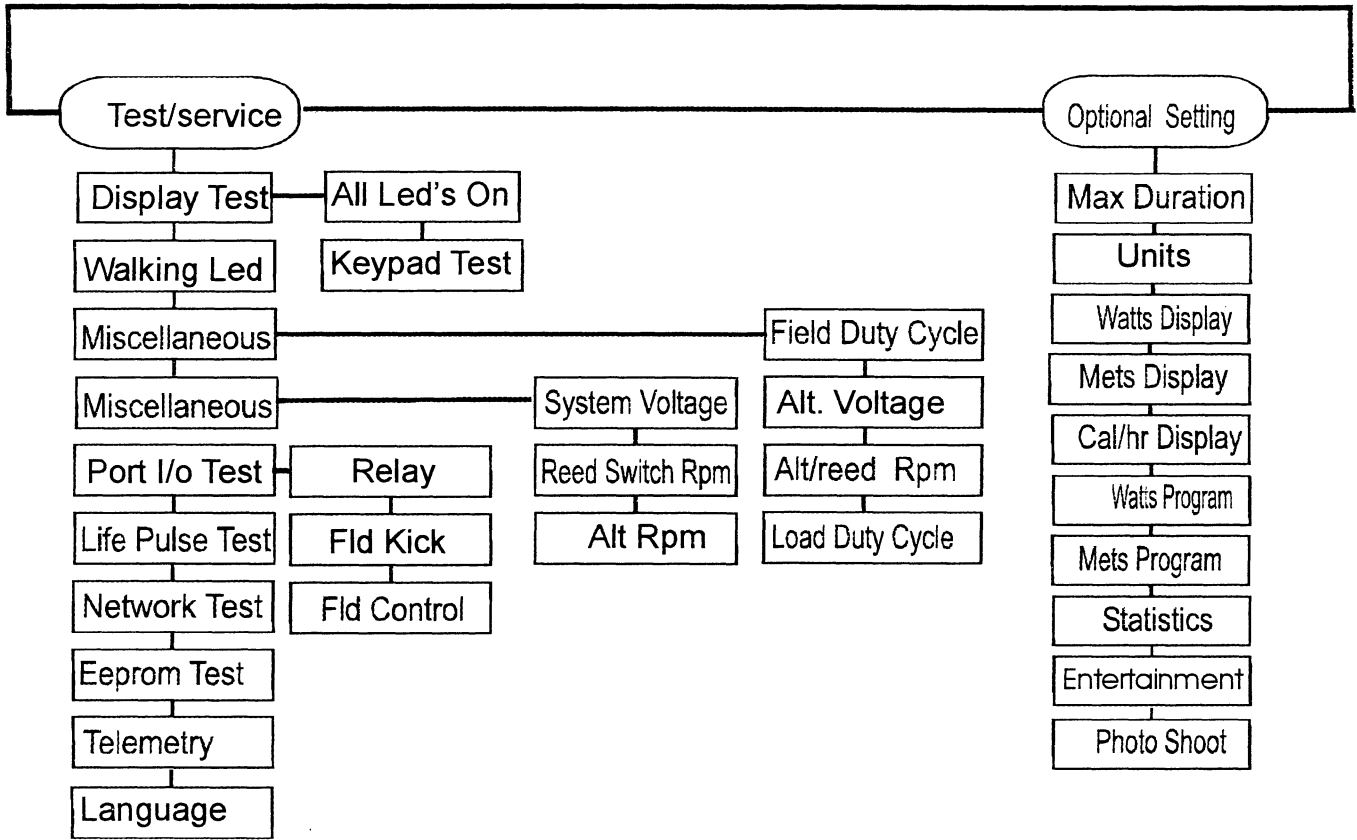
**LifeCycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
DISPLAY CONSOLE R7**



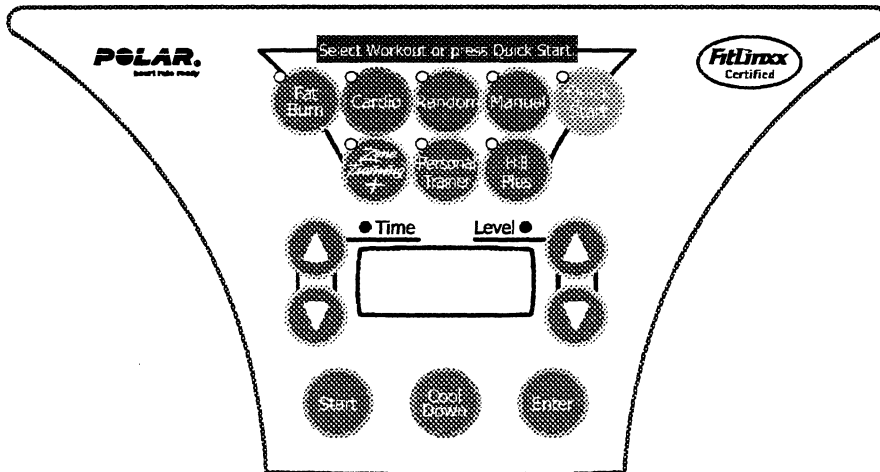
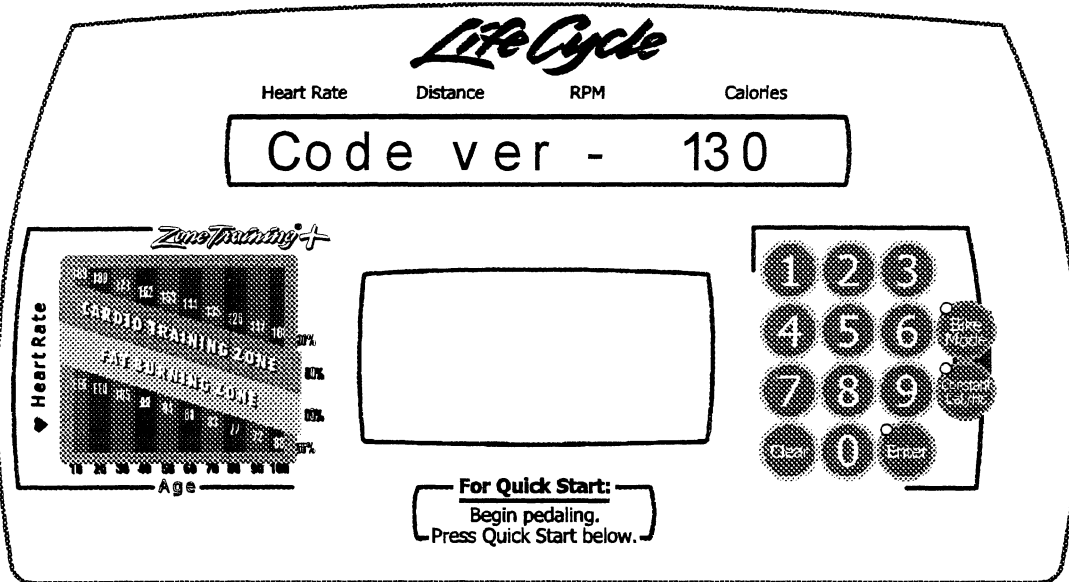
R7



**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
MAP**



**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**ENTRY LEVEL**



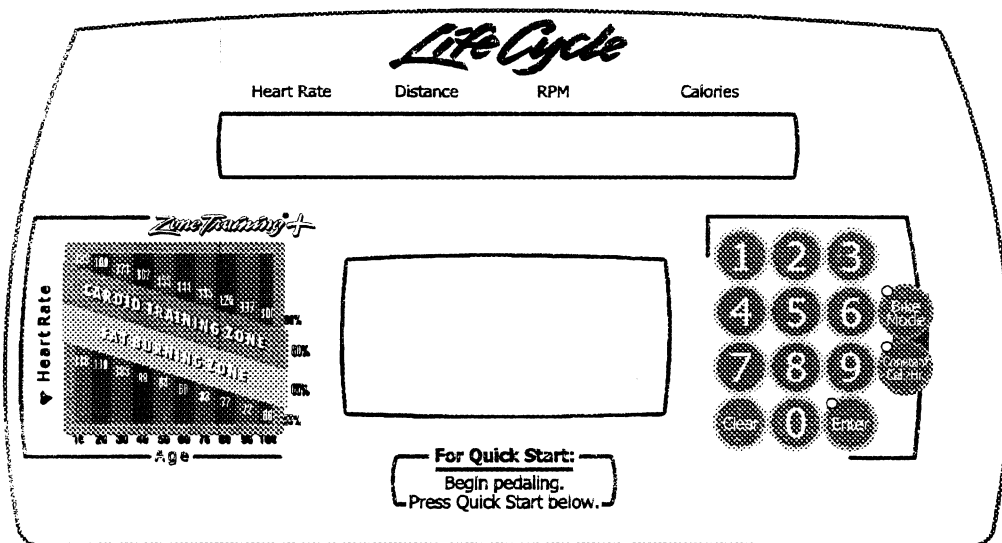
Hold down the number 5 key or the UP ARROW key, then the press the CLEAR key twice. Press the up ARROW key. The display menu will show after each press:

CODE VERSION .....ex: CODE VER - X.XX  
 CSAFE VERSION .....ex: Csafe ver-- X.XX.XX  
 PART NUMBER .....ex: XXXX-- XXXXX--0000  
 BOOT LOADER VERSION.....ex: BOOT VER -- X

Press ENTER for entry into the **OPTIONAL SETTINGS**.

**To enter the TEST/SERVICE MENU press and hold the COOL DOWN key, and then press the ENTER key.**

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE ALL LEDS AND KEYPAD TEST**

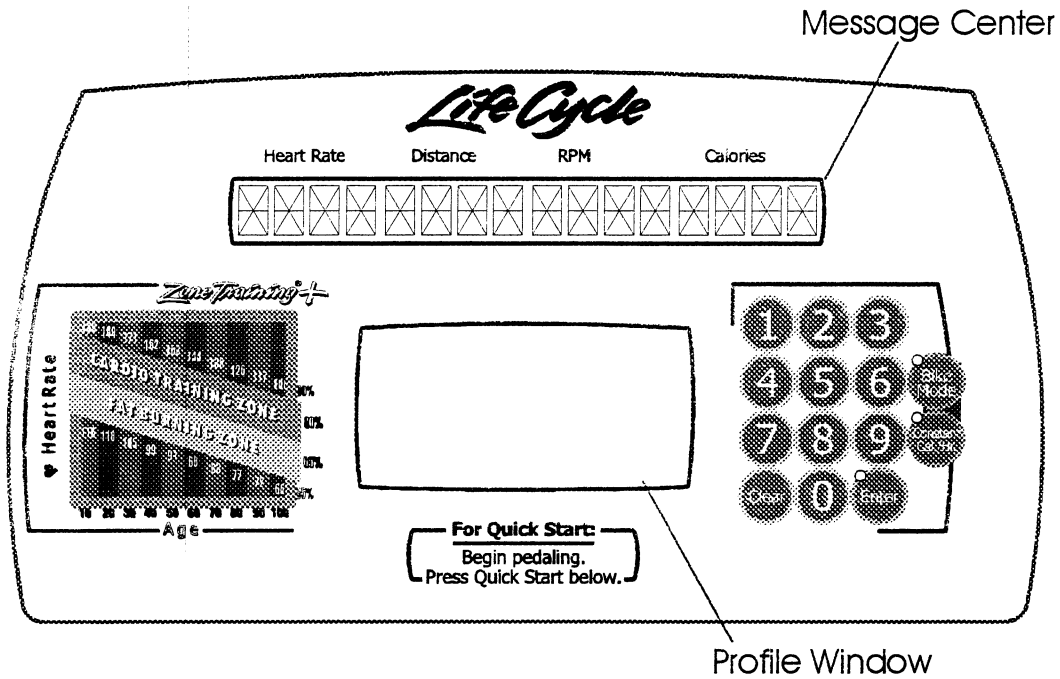


On entry to this state, all of the LEDs will turn ON. Pressing the keys will result in a beep sound for all but the START, ENTER and CLEAR keys, a character repeated across the message center will be displayed.

KEYS	DISPLAYED CHARACTER	KEYS	DISPLAYED CHARACTER
0	0	Display Lock	L
1	1	Workouts Plus	K
2	2	Change Workout	W
3	3	Up arrow	U
4	4	Down Arrow	D
5	5	Bike Mode	B
6	6	Constant Cal. / Hr.	A
7	7	Quick Start	Q
8	8	Start	S
9	9	Pause	P
TIME UP	U	Cool down	--
TIME DOWN	D		
LEVEL UP	▲		
LEVEL DOWN	▼		
BIKE MODE	B		
CONSTANT Cal./HR.	A		
FAT BURN	F		
CARDIO	C		
RANDOM	R		
MANUAL	M		
QUICK START	Q		
ZONE TRAINING	Z		
PERSONAL TRAINER	T		
HILL PLUS	H		
COOL DOWN	--		

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

**LifeCycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE - WALKING LED TEST**

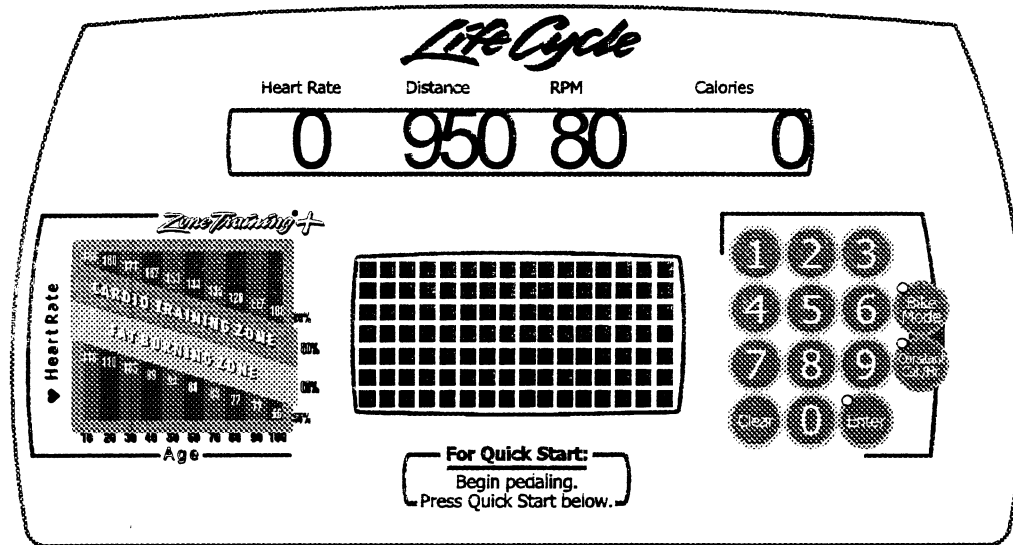


On entry to this state, the LED segments in the MESSAGE CENTER and the PROFILE WINDOW will give the animated effect of moving, henceforth, "Walking LED."

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

**LifeCycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE - MISCELLANEOUS 1 TESTS**

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**FIELD DUTY CYCLE:** In the Heart Rate Window, the Field Duty Cycle being applied to the alternator will be displayed (LC95R and R9I only). This value ranges from 0-255.

**ALTERNATOR OUTPUT:** In the Distance Window, the alternator output voltage is displayed for LC95R, LC91R, and R9.

**RPM:** In the RPM window, the present alternator RPM will be displayed.

**CALORIES:** In the Calories window, the present Load Duty Cycle being applied to the alternator will be displayed. Load duty cycle ranges from 0-320 for LC95R model, 0-280 for LC91R and R9 models, and 0-415 for LC85R and R7 models. This value can be adjusted using the Time Up and Time Down arrow keys on the LC95R console, and the UP and DOWN arrow keys on all other models.

**BIKE MODE KEY:** Press the Bike Mode key to toggle the speaker ON and OFF.

**'0' KEY:** Press the '0' key to toggle the RPM display between the alternator RPM and Reed Switch RPM. The Enter LED will be ON when alternator RPM is displayed. RPM from the reed switch will not display when the alternator is running.

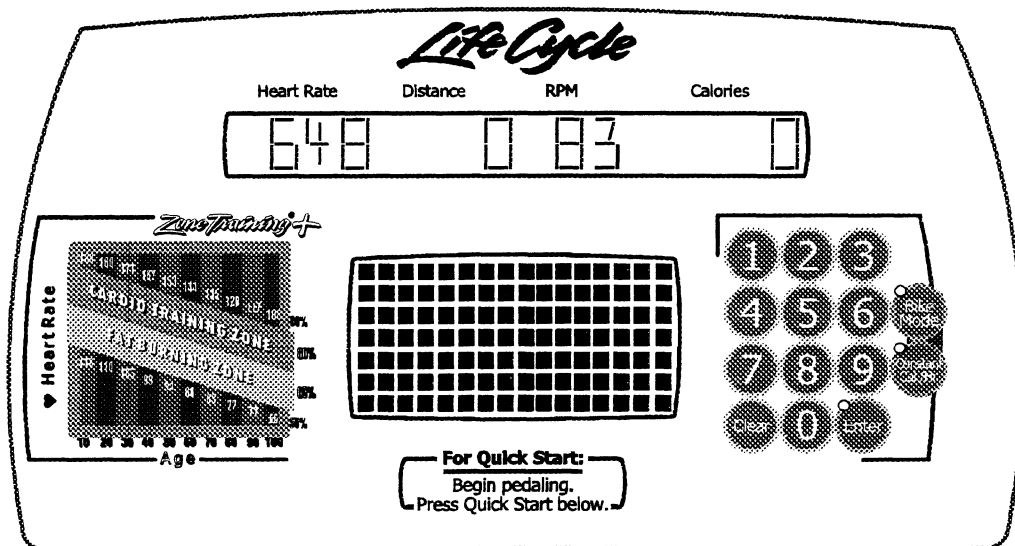
**'5' KEY:** Press the '5' key (95R only) to toggle the alternator ON and OFF.

**ENTER KEY:** Press the ENTER key to advance to the next diagnostic state.

**CLEAR KEY:** Press the CLEAR key to go back to a previous diagnostic state, or repeated pressing to exit diagnostics.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE - MISCELLANEOUS 2 TESTS**

---



**REED SWITCH RPM:** In the Distance Window, the Reed Switch RPM is displayed. Note: The Reed Switch RPM will not display when the alternator is running.

**RPM:** In the RPM window, the alternator RPM will be displayed.

**SYSTEM VOLTAGE (V<sub>sys</sub>):** In the Heart Rate Window, the present system voltage (V<sub>sys</sub>) supplied to the console is displayed.

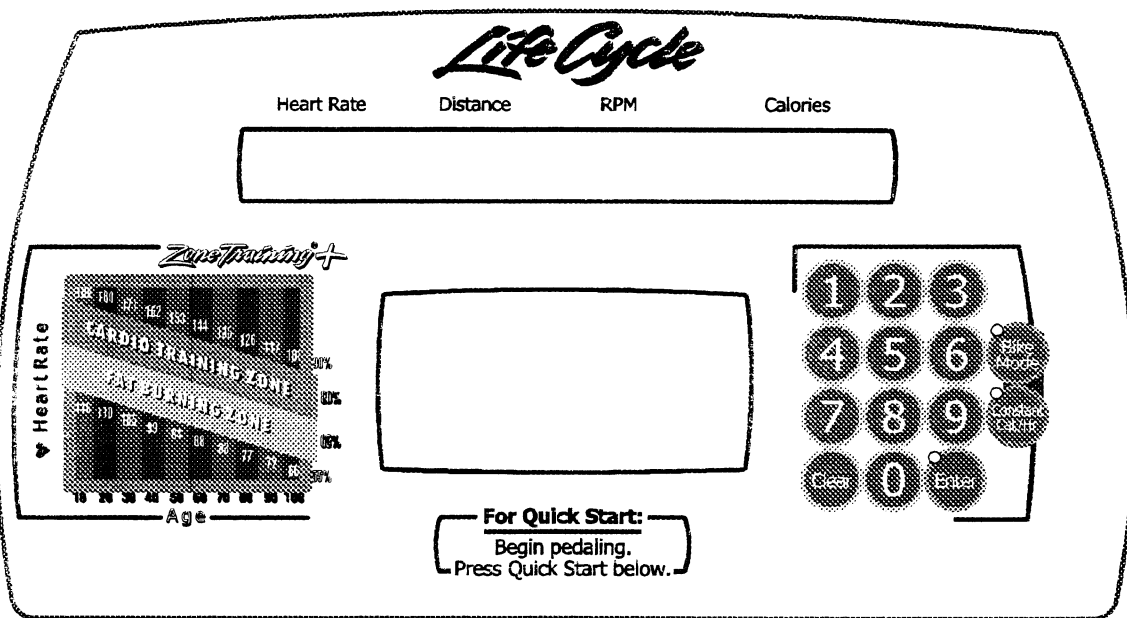
**'5' KEY or DOWN ARROW KEY:** Pressing the '5' key or the DOWN Arrow key will display the value of V<sub>sys</sub> at startup, before the alternator is turned ON. This is useful because you can get an indication of the battery voltage of the 6V battery. Note: This voltage will be slightly lower than if you read the voltage of the 6V battery directly from its terminals.

**ENTER KEY:** Press the ENTER key to advance to the next diagnostic state.

**CLEAR KEY:** Press the CLEAR key to go back to a previous diagnostic state, or repeated pressing to exit diagnostics.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE - PORT I/O TEST**

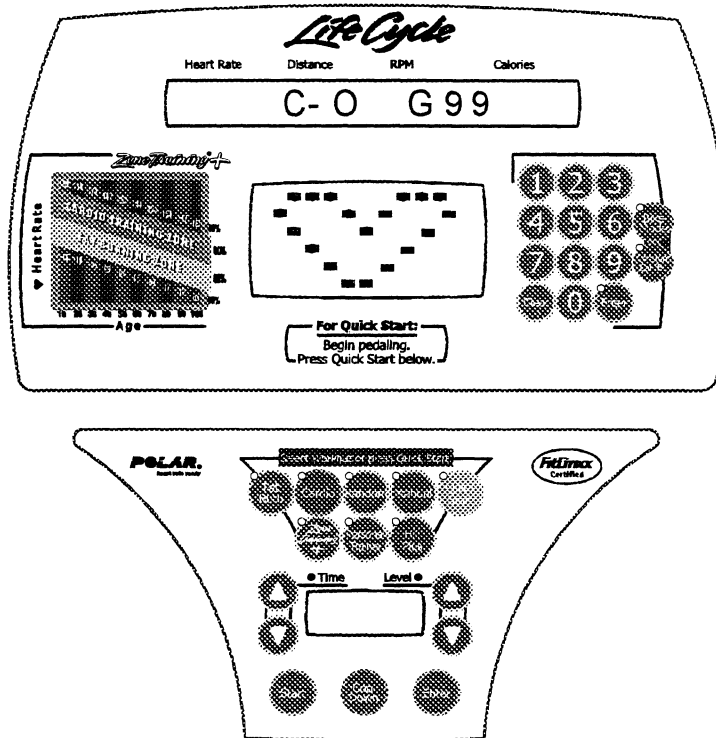
---



Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE - LIFE PULSE TEST (LC95R and R9 ONLY)**

---



Upon initial entry to this test, a heart-shaped image will be displayed in the profile window along with two messages in the message center when the user has both hands on the lifepulse sensors. The first message indicates the lifepulse software version number. The second is the configuration of the lifepulse communication system, which is either ON or OFF. This setting enables external communications for lifepulse development only and should be left OFF. Following these messages, the display will change to a mode to display diagnostic information as described below, and the lifepulse system will be ready to be manually tested.

When both hands are detected on the sensors, the letters 'L' and 'R' will be displayed in the profile window along with the heart-shaped image.

Two timers will begin counting from the time both the left and right hands on condition occurs. The first timer, located on the upper console message center display, will stop counting when lifepulse computes and displays an initial peak detected heart rate reading. The second timer, located on the lower console display window, will continue counting until lifepulse can reliably display the users heart rate. These timer readings are used for reference only.

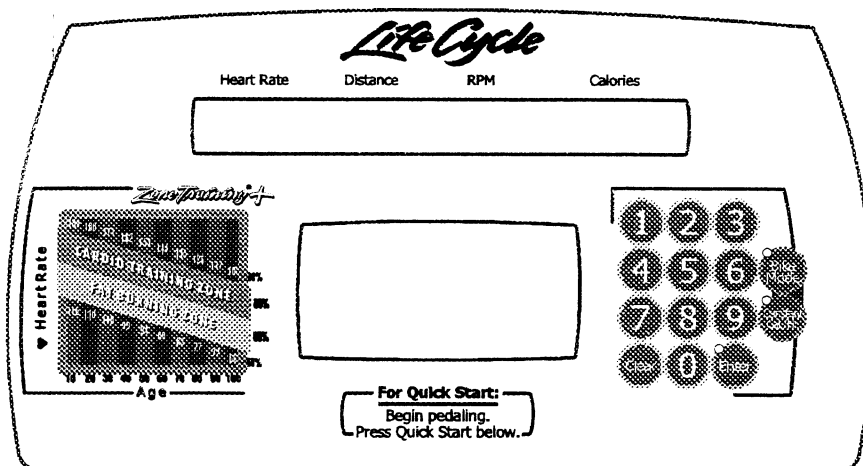
The gain value of the heart rate signal is shown following the 'G' in the message display window. The value ranges from 0 to 99. A gain value of 99 is considered to be high and undesirable. A gain value of 0 is considered to be low and also undesirable. Gain values of between 15 and 40 are considered normal depending upon whether the user is exercising or standing still during this test.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.



**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE - CSAFE NETWORK TEST**

---



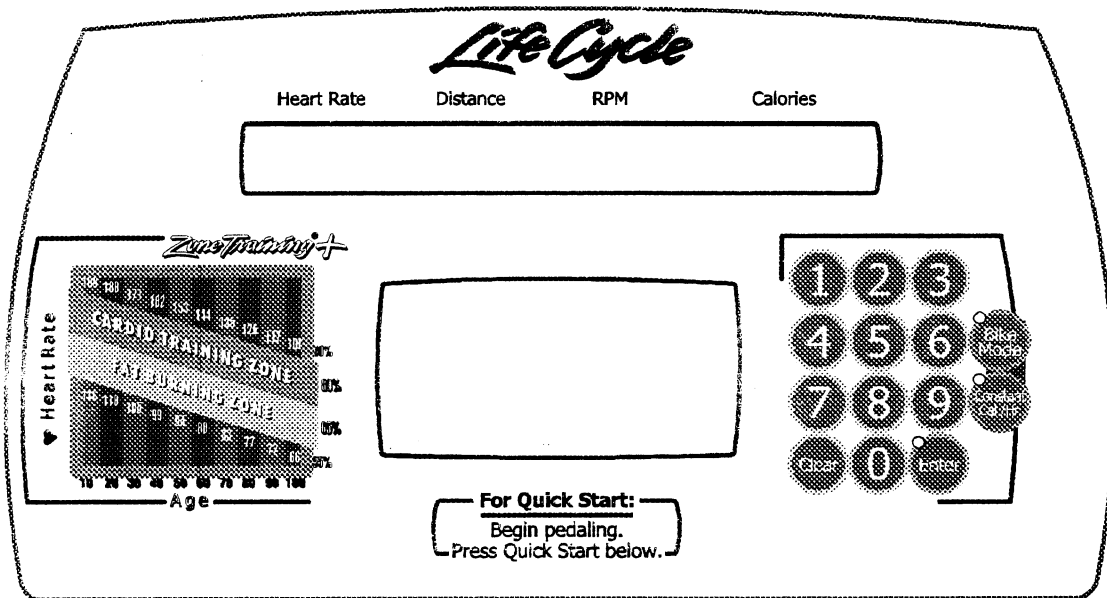
Within this state, the CSAFE network can be tested.

This is how you can check to see if you're receiving any communications from the network system.

1. Remain in the CSAFE Test Mode above (by not exiting out of it).
2. Make sure the network cable is plugged in.
3. Press the COOLDOWN key. This will reset the console and send out the standard power up message to the network. The console should display "RESETTING NETWORK". The power up message sent to the network is the same one the console sends every time it is turned on (or anytime it is used by a user on self-powered products).
4. If the network has received the CSAFE communication packet from the console and the network sends configuration communication packet to the console the console will display "RECEIVING..."
5. If the console has been properly configured by the network and is allowed to accept user ID's then the console would show "GETID MODE XX". The "GETID" message means were in the get ID mode. This is the mode the network must put the console in, before it will ask the user to enter in their ID's. If the console is not put in this mode then the console will not ask for ID's.
6. If the network does not respond to the console then the console will display a "NOT CONNECTED" message. This indicates there is a problem with the network cable or network itself. This means the console has not received any valid CSAFE communications from the network.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

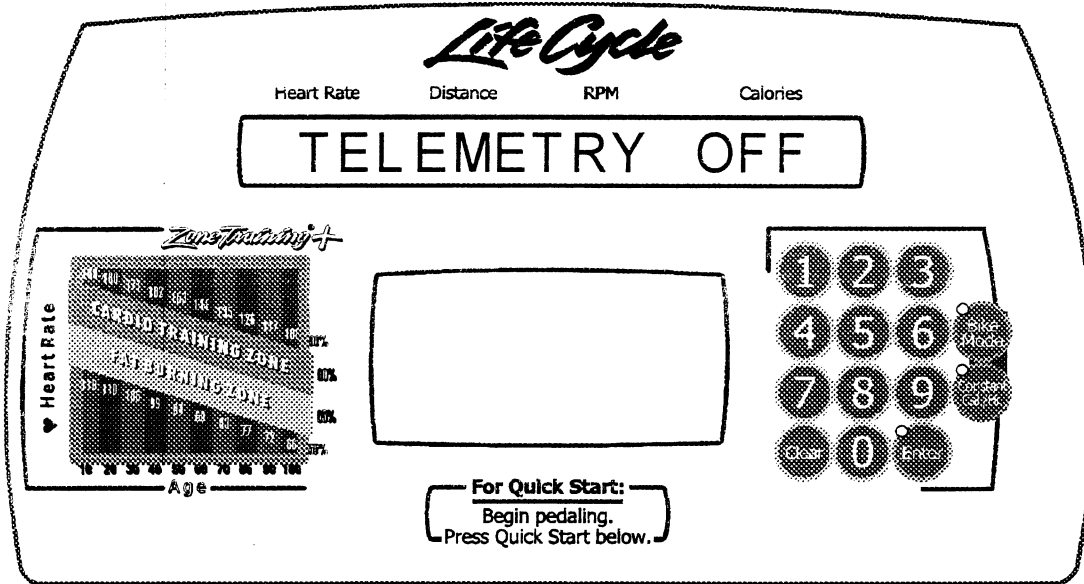
**LifeCycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE - EEPROM TEST**



This diagnostic state tests the Display Console EEPROM by reading, writing, and replacing all used locations in the Display Console EEPROM. The EEPROM location being tested will appear in the display message center. Pressing the DOWN ARROW will initiate the EEPROM test. If the test completes successfully, the message EEPROM GOOD will appear. If the test fails, the message EEPROM BAD AT XX will display with the bad EEPROM location.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE - TELEMETRY ENABLE/DISABLE**



Within this state, the TELEMETRY can be turned ON or OFF. If a telemetry heart rate is detected, it will be displayed when telemetry is set to ON.

By default, the lifecycles will have TELEMETRY ON except for C9I has telemetry OFF.

The DOWN ARROW will turn OFF the telemetry.

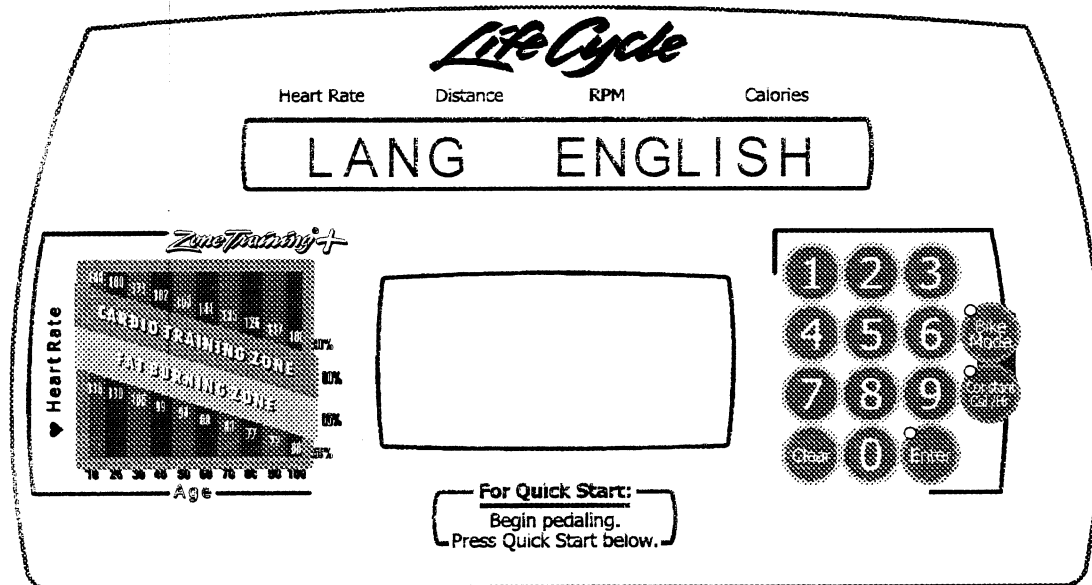
The UP ARROW will turn ON the telemetry and display a heart shape in the program profile window.

The ENTER key LED indicates when the value is at the default setting of TELEMETRY ON. This value is stored in EEPROM and is kept when the unit is not in use.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

**LifeCycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**TEST/SERVICE - LANGUAGE**

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Within this state, one of seven languages can be selected to include: English, German, French, Italian, Dutch, Spanish or Portuguese.

The UP ARROW, when pressed, displays the next language in the list.

The DOWN ARROW, when pressed, displays the previous language in the list.

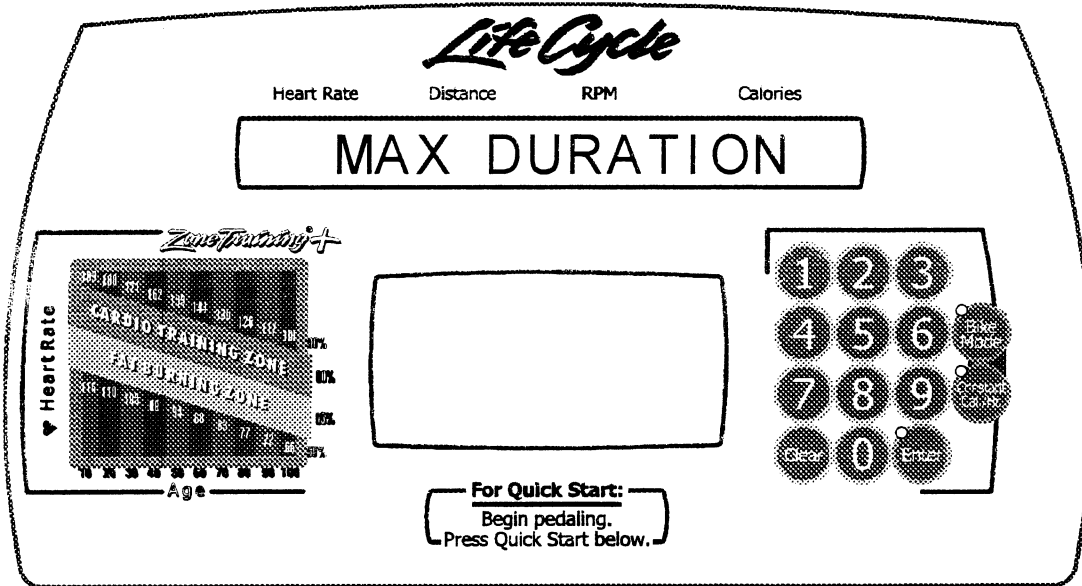
The ENTER key LED indicates when the language is set to the default of ENGLISH.

This value is stored EEPROM and is kept when the unit is not in use.

Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**OPTIONAL SETTINGS - MAX PROGRAM DURATION**

---



Within this state, the MAXIMUM PROGRAM DURATION is displayed and can be adjusted from a range of 1-99 minutes on the LC9100, LC8500, C9i, and C7i. LC9500 can be adjusted from 10-99 minutes.

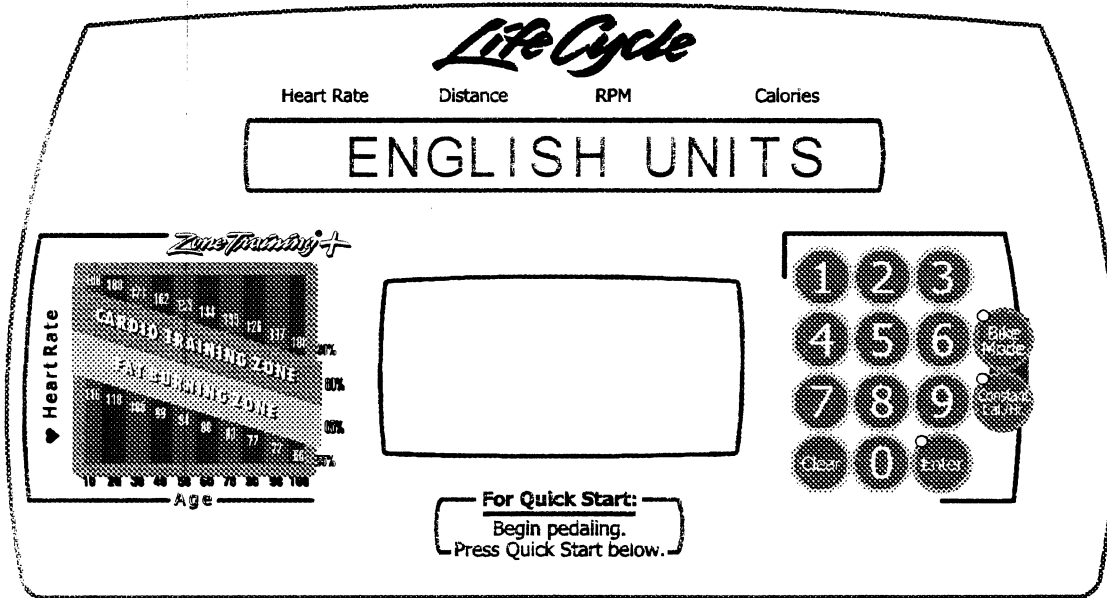
The DOWN ARROW will decrease the value by 1 minute. Key will Auto-Repeat if held.

The UP ARROW will increase the value by 1 minute. Key will Auto-Repeat if held.

The ENTER key LED indicates when the value is at the default of 60 minutes. This value is stored in EEPROM and is kept when the unit is not in use.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

*Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes*  
**OPTIONAL SETTINGS - ENGLISH/METRIC UNITS**



Within this state, ENGLISH or METRIC units can be selected.

The DOWN ARROW will select METRIC units.

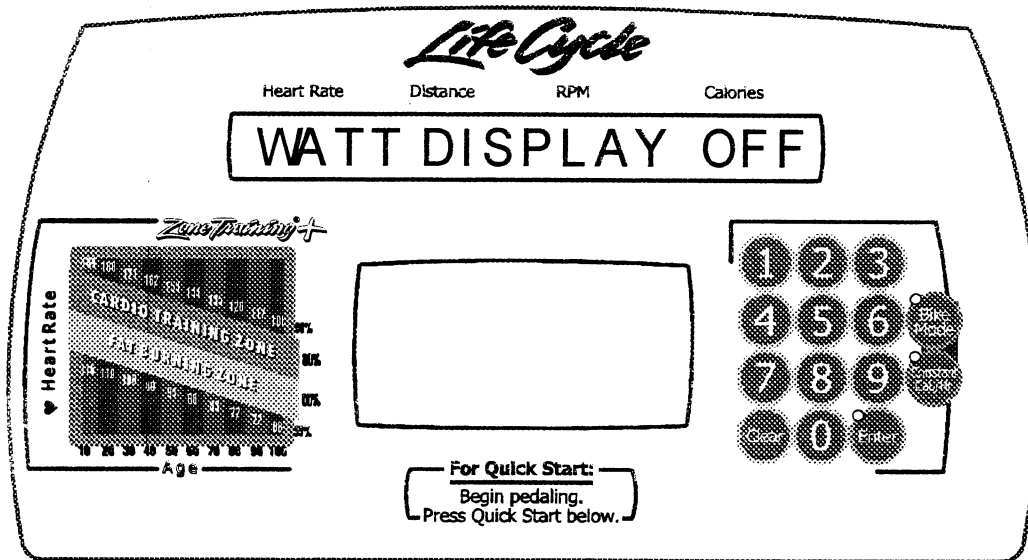
The UP ARROW will select ENGLISH units.

The ENTER key LED indicates when the value is at the default setting of ENGLISH UNITS.

This value is stored in EEPROM and is kept when the unit is not in use.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

*LifeCycle* LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
OPTIONAL SETTINGS - WATTS DISPLAY ENABLE/DISABLE



If this option is enabled, the MESSAGE CENTER displays the Watts equivalent of the workload. This message will only be displayed after a level change.

The DOWN ARROW will turn OFF the WATTS PROGRAM.

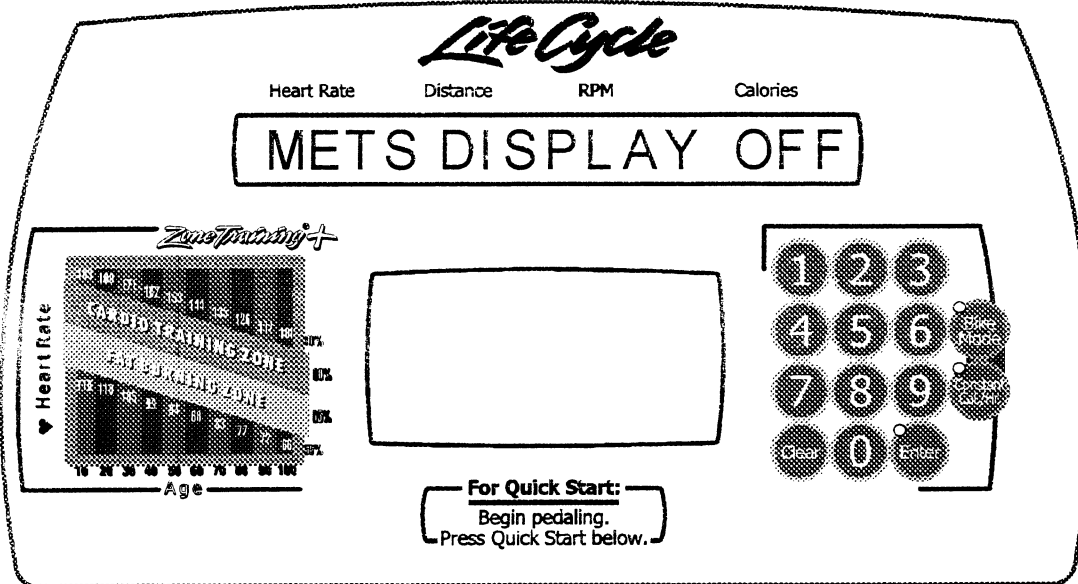
The UP ARROW will turn ON the WATTS PROGRAM.

The ENTER key LED indicates when the value is at the default setting of WATTS PROGRAM ON.

The value is stored in EEPROM and is kept when the bike is not in use.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**OPTIONAL SETTINGS - METS DISPLAY ENABLE/DISABLE**



If this option is enabled, the MESSAGE CENTER displays the METs equivalent of the workload. This message will only be displayed after a level change.

The DOWN ARROW will turn OFF the METS PROGRAM.

The UP ARROW will turn ON the METS PROGRAM.

The ENTER key LED indicates when the value is at the default setting of METS PROGRAM ON.

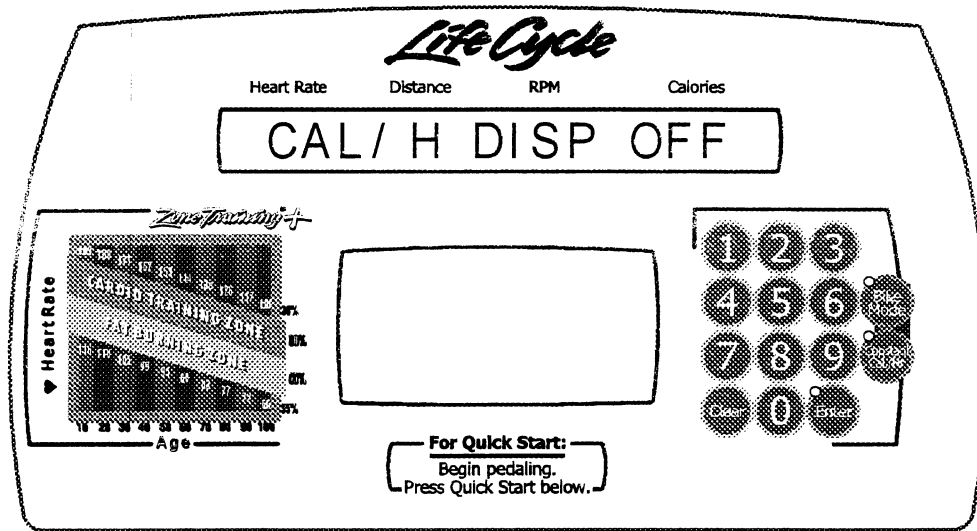
The value is stored in EEPROM and is kept when the bike is not in use.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.



*LifeCycle* LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
OPTIONAL SETTINGS - CAL/HR DISPLAY ENABLE/DISABLE

---



If this option is enabled, the MESSAGE CENTER displays the Calories/Hour equivalent of the workload. This message will only be displayed after a level change.

The DOWN ARROW will turn OFF the CAL/H program.

The UP ARROW will turn ON the CAL/H program.

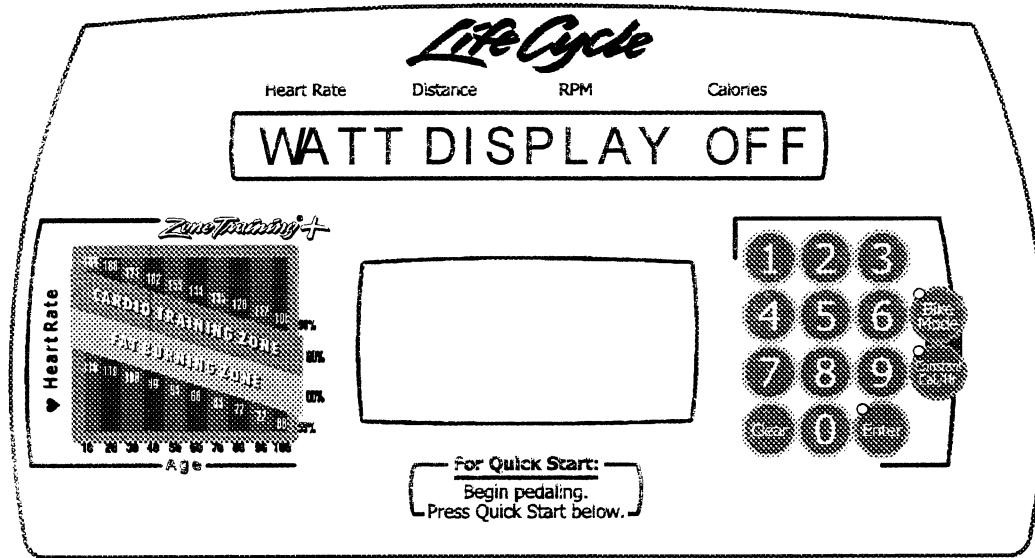
The ENTER key LED indicates when the value is at the default setting of CAL/H PROGRAM ON.

The value is stored in EEPROM and is kept when the bike is not in use.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**OPTIONAL SETTINGS - WATTS PROGRAM ENABLE/DISABLE**

---



If this option is enabled, the MESSAGE CENTER displays the Watts equivalent of the workload. This message will only be displayed after a level change.

The DOWN ARROW will turn OFF the WATTS PROGRAM.

The UP ARROW will turn ON the WATTS PROGRAM.

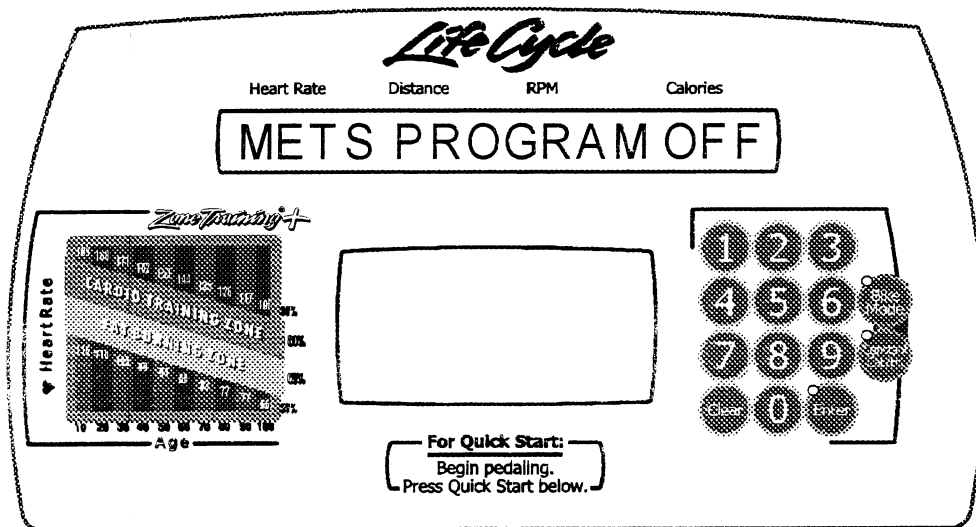
The ENTER key LED indicates when the value is at the default setting of WATTS PROGRAM ON.

The value is stored in EEPROM and is kept when the bike is not in use.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

*LifeCycle* LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
OPTIONAL SETTINGS - METS PROGRAM ENABLE/DISABLE

---



Within this state, METS PROGRAM can be turned ON or OFF.

By default, the LifeCycle will have the METS PROGRAM OFF.

The DOWN ARROW will turn OFF the METS PROGRAM.

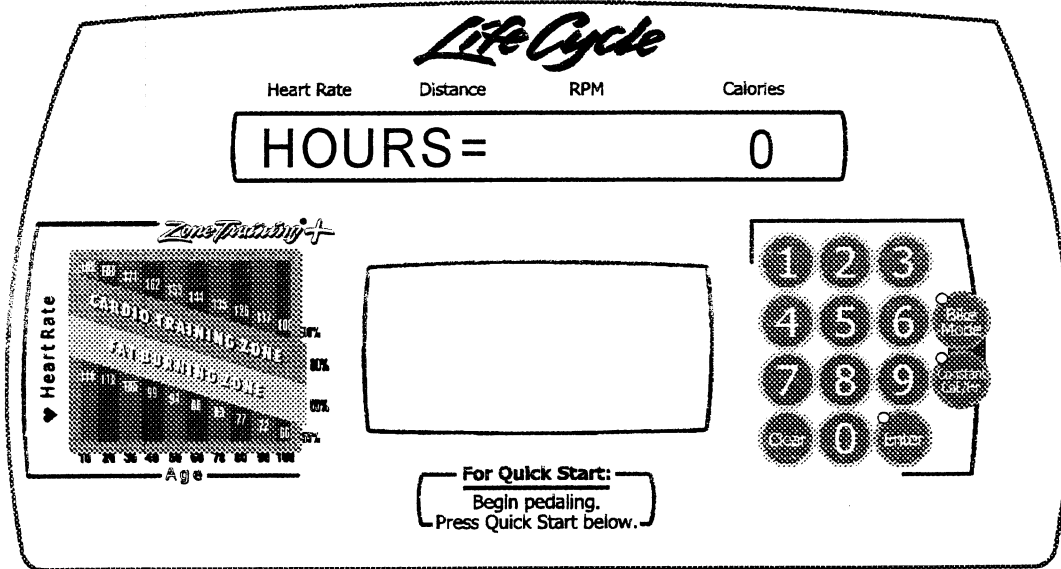
The UP ARROW will turn ON the METS PROGRAM.

The ENTER key LED indicates when the value is at the default of METS PROGRAM ON.

This value is stored in EEPROM and is kept when the bike is not in use.

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

*LifeCycle* LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
OPTIONAL SETTINGS - TOTAL HOURS AND STATISTICS



Upon entry to this state, TOTAL HOURS are displayed.

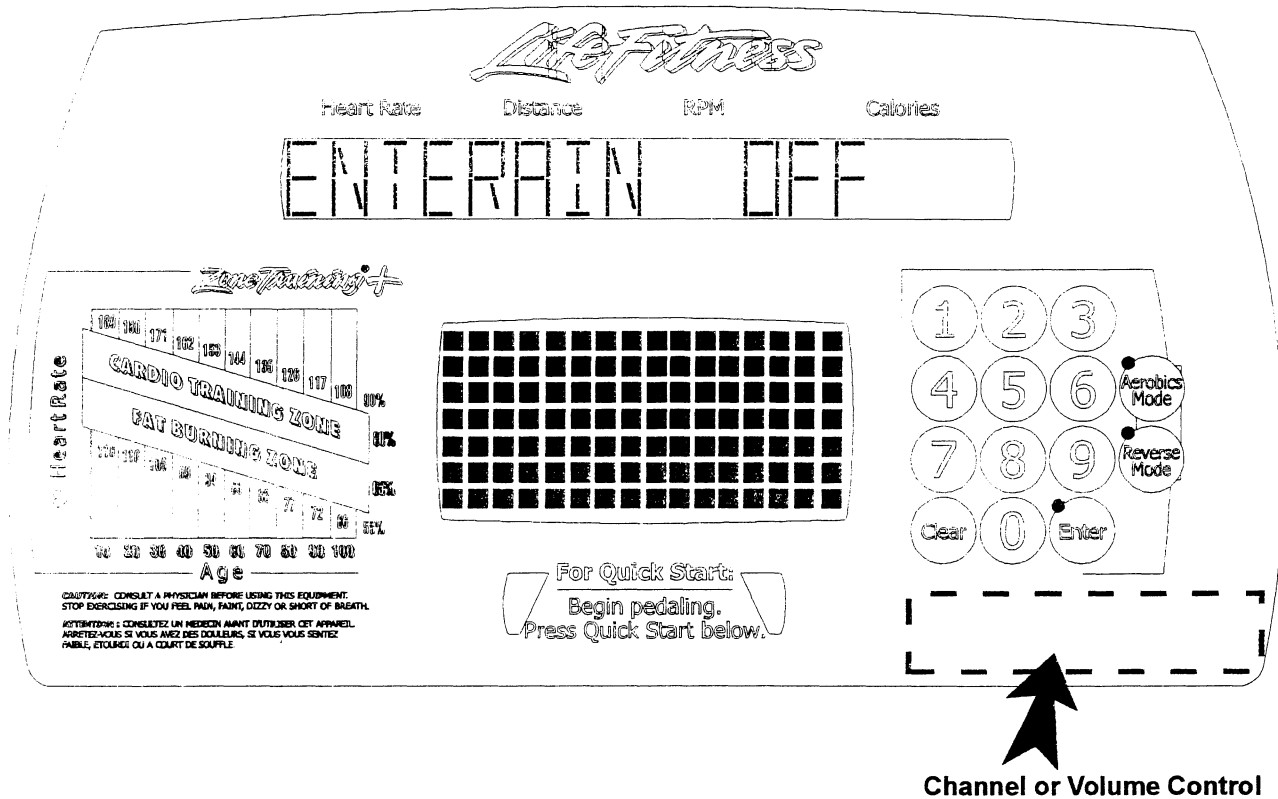
STATISTICS can be displayed using the UP and DOWN arrow keys. The UP ARROW allows scrolling through the available programs and shows the number of times each program has been selected. The DOWN ARROW backs up through the list of available programs and back to the total hours displayed.

The Programs are:

- HOUR = Total hours on the console
- DIST = Total distance in miles on the console
- HILL
- RANDOM
- MANUAL
- FAT
- CARDIO
- AEROBICS
- X-REV
- WATTS
- METS
- QUICK
- HEART HILL
- HEART INT
- HEART EXT
- PRE SET
- CUSTOM

Press the ENTER key to advance to the next diagnostic state. Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

**Lifecyrie LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**OPTIONAL SETTINGS - ENTERTAINMENT CONTROLS**  
**ON/OFF (LC9500 ONLY)**



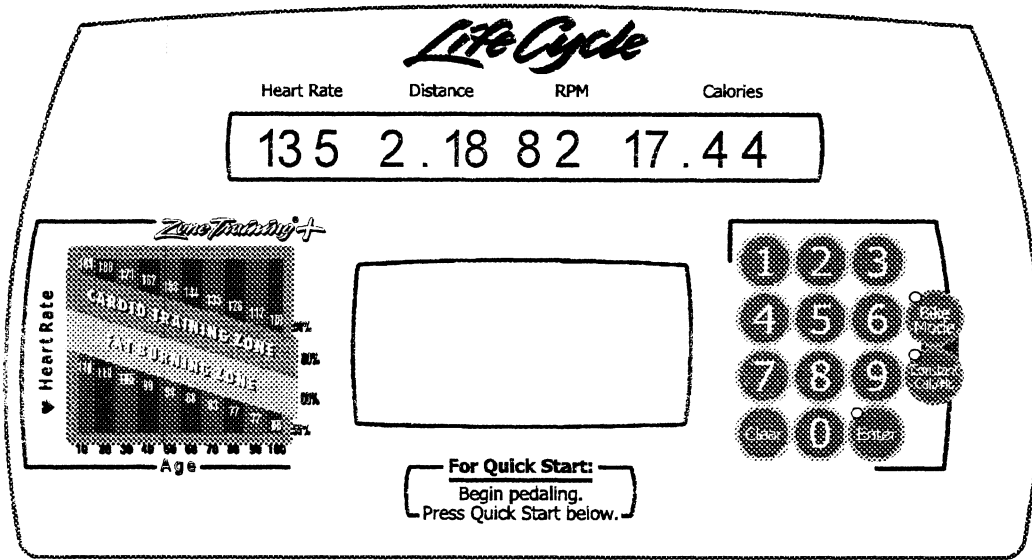
**The ENTERTAINMENT CONTROL SETTING**

Using the arrow keys will turn ON or OFF the entertainment (cardio theater/broadcast vision) controls for the CSAFE PORT output for volume and channel change. Off is the default setting.

Note: The Channel or Volume Control is supplied by Cardio Theater or Broadcast Theater. These controls can be found as indicated by the dashed-box.

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**OPTIONAL SETTINGS - PHOTO SHOOT**

---



Data displayed in the message center is non-functional and intended only to simulate values for photographic sessions.

Press the CLEAR key to the previous diagnostic state, or repeated pressing to exit diagnostics.

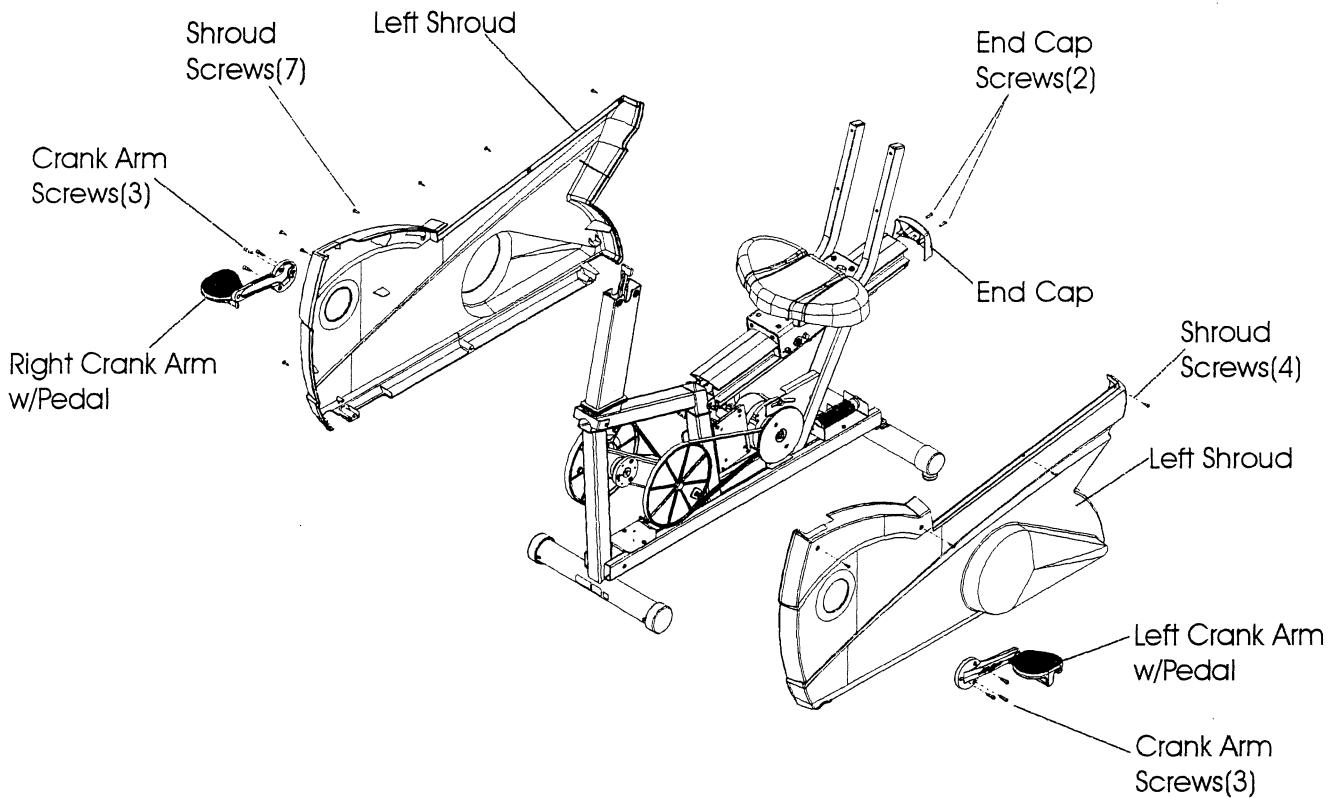
## **SECTION III**

# **How To... SERVICE AND REPAIR GUIDES**

# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

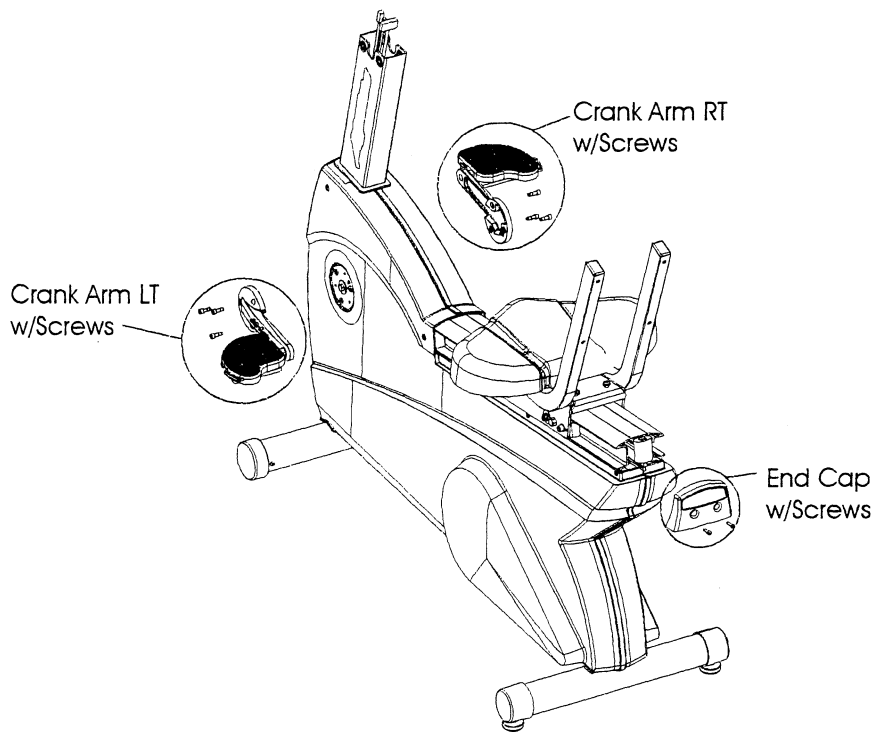
## How To... Replace the Side Shrouds and Crank Arms

**Special Service Tools: NONE**



Note: To remove the side shrouds, it will be necessary to remove both pedals and crank arms, and the end cap. Use the illustrations on this page to aid in this procedure.

1. Remove three screws from the left and right crank hubs, and then remove the crank arms with pedals attached.
2. Remove two screws from the end cap at the end of the frame which allows access to the left and right side shroud screws.
3. Remove the left and right side shroud screws, and then remove the side shrouds. Discard shrouds.
4. Install new side shrouds in reverse order. Torque the shroud screws 12-15 in lbs.
5. Torque crank arm screws 15-20 ft lbs.





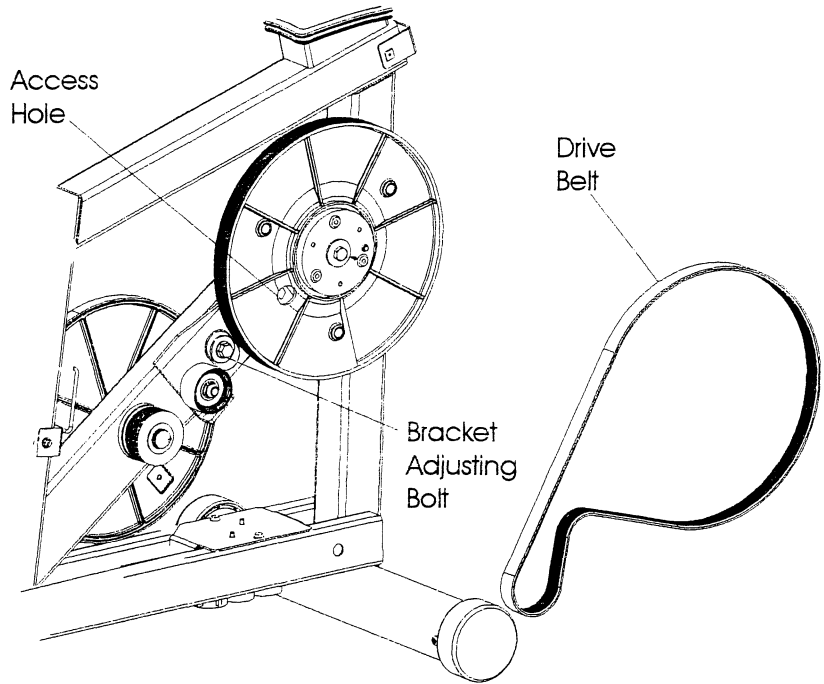
## ***Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes*** **How To... Remove the Drive Belt**

**Special Service Tools: NONE**

---

Note: An access hole in the crank pulley allows removal or loosening of the idler bracket bolt with a socket.

1. Remove the right side shroud. See "How To..." in this section.
2. Rotate the crank pulley until the idler bracket mounting bolt is visible through the access hole in the crank pulley, then loosen the bolt.
3. Loosen the belt tension by loosening the adjusting bolt on the idler bracket.
4. Remove old belt and discard.
5. Install new belt in reverse order.
6. Adjust belt tension 100-110 lbs by moving the idler bracket down. Insert a straight blade screwdriver in the slotted lip of the bracket to obtain specified tension. When belt tension is achieved, then tighten the mounting bolt and adjustable bracket bolt. Remove the right shroud. See "How To..." in this section.

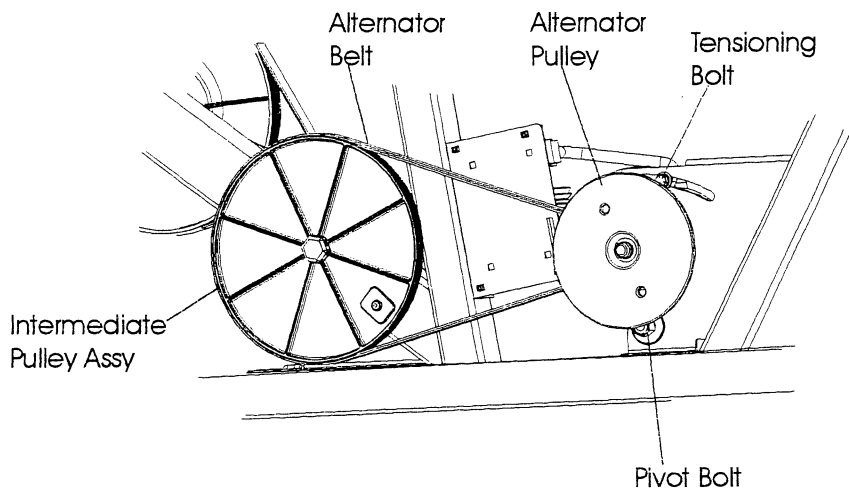


# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

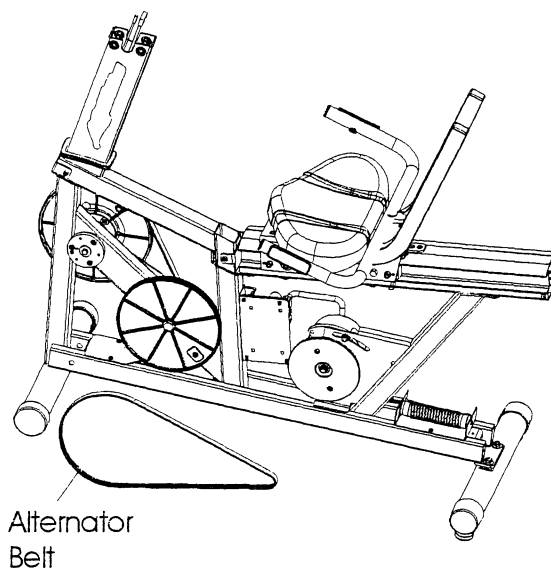
## How To... Replace the Alternator Belt

Special Service Tools: NONE

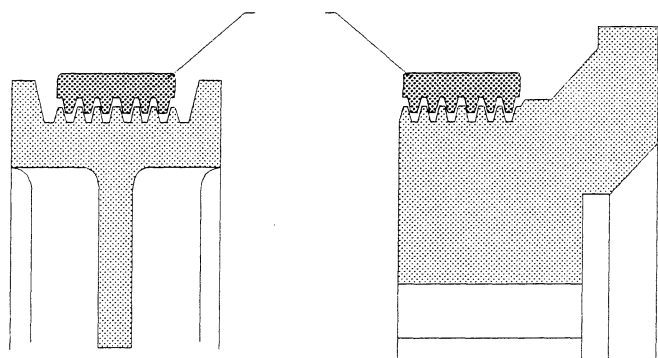
1. Remove the side shrouds. See "How To..." in this section.
2. Index the location of the tensioning bolt to the alternator mounting bracket, and then loosen the tensioning bolt.
3. Loosen the pivot bolt, and then rotate the alternator until the belt can be removed from the alternator pulley and the intermediate pulley.



4. Install new alternator belt in reverse order. Position the alternator belt on the far left groove of the alternator flywheel pulley (towards user side) and in the center of the alternator pulley (large pulley). Then tighten the belt back to the index mark or 70-80 lbs.



### Alternator Belt



Alternator Pulley

Flywheel Pulley

# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Crank Shaft Hub Assembly

### Special Service Tools: Bearing Service Tool Kit – Part Number: BearingToolKit

Note: The left shroud does not require removal to service the left crank shaft hub.

1. Remove the right crank arm and shroud. See “How To...” in this section.
2. Remove the drive belt. See “How To...” in this section.
3. Remove the bolt and washer in the center of the hub.

NOTE: There is an arrow mark on each hub which is located 180 degrees apart, and is used for proper crank arm position.

4. Install the disc puller plate as illustrated on the left hub.
5. Turn the puller forcing bolt clockwise until the left hub is removed. Discard the hub.

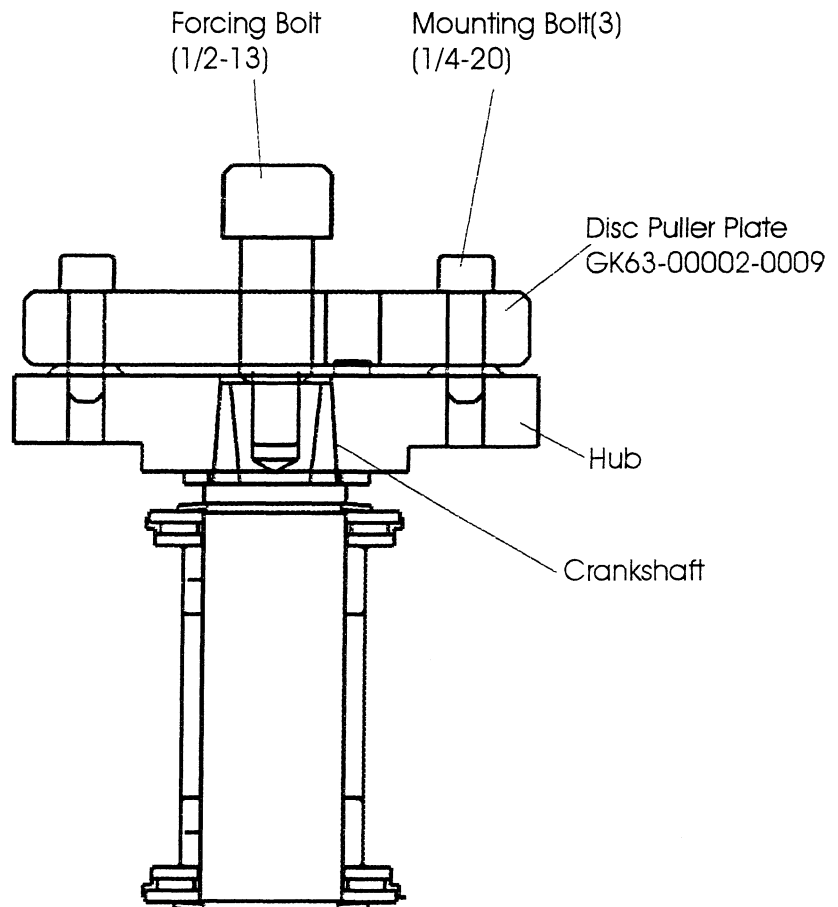
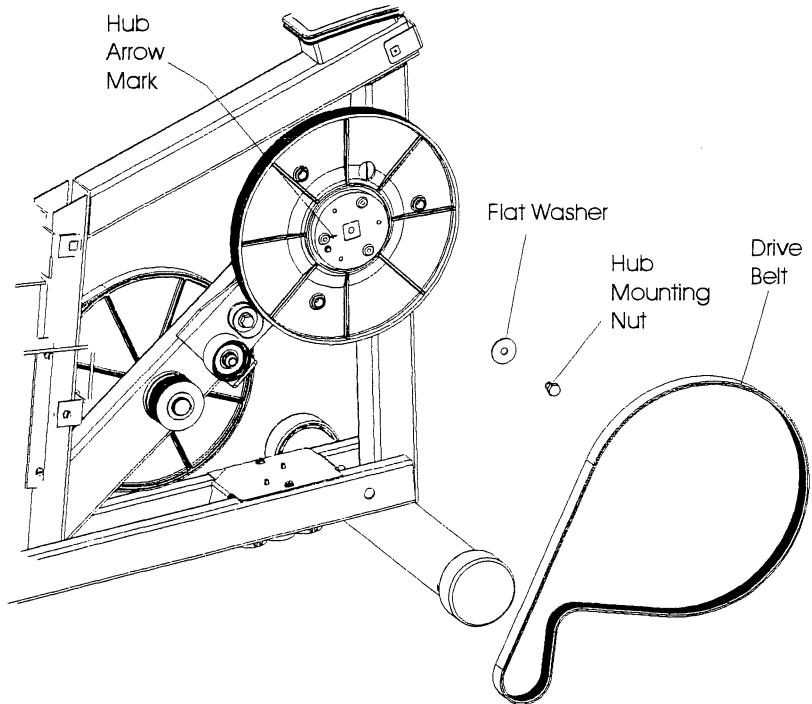
NOTE: The right hub is removed with the crank shaft pulley attached. Use the puller as described in left hub removal. Once off, remove the three screws at the back of the pulley to separate it from the hub.

NOTE: Make sure the arrow mark on the hub is pointing 180 degrees from the other hub.

6. Position the new hub on the crank shaft with the washer. Install the mounting bolts and tighten evenly until the hub is fully seated on the shaft.  
Torque: 220-240 in lbs.

NOTE: If the right hub was replaced, then install the hub back on the pulley first and secure using the three mounting screws.

7. Reinstall the side shrouds, crank arms, and pedals.



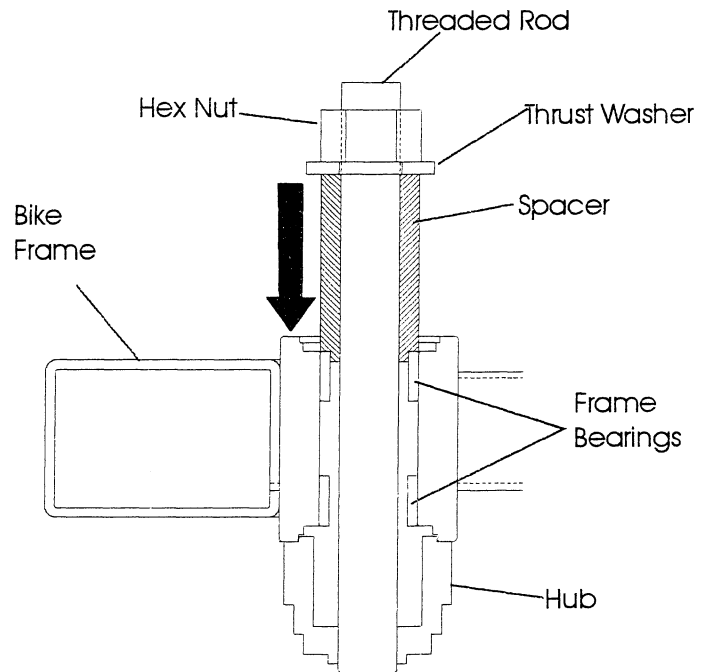
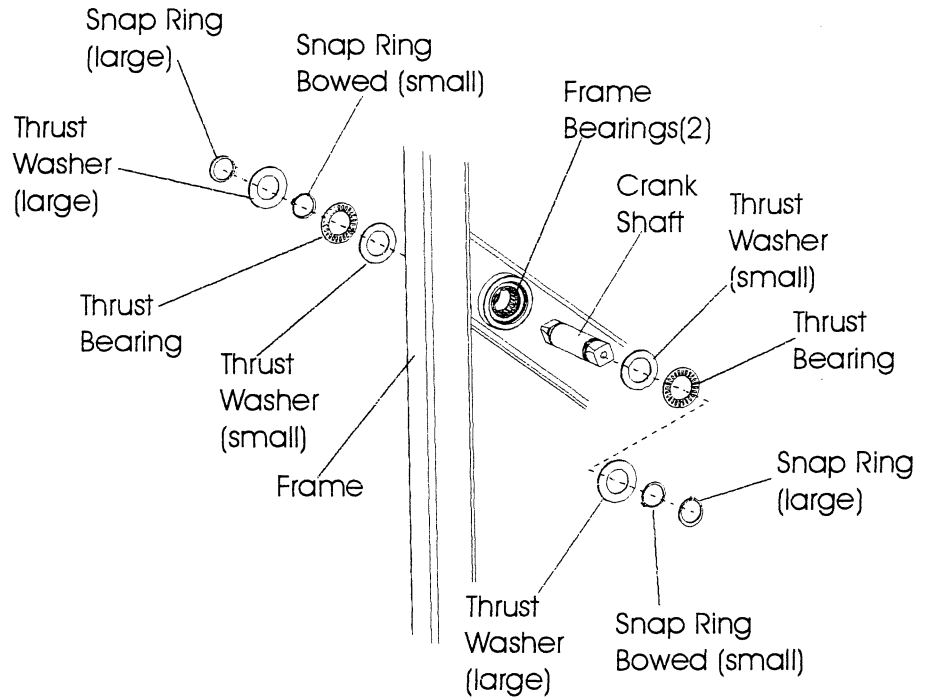
REMOVING THE HUB

# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Crank Shaft Bearings

**Special Service Tools: Bearing Service Tool Kit – Part Number: BearingToolKit**

1. Remove the side shrouds. See "How To..." in this section.
2. Remove the main drive belt. See "How To ... " in this section.
3. Remove the crank shaft hubs. See "How To..." in this section.
4. Remove the large snap rings, the bowed snap rings, the large and small thrust washers, and the thrust bearings from both sides of the crank shaft.
5. Push the crank shaft out from the frame bearings.
6. Inspect, and if necessary, replace any crank shaft component parts before reassembling onto the new crank shaft.
7. Install the bearing puller on the crank frame bearings as illustrated.



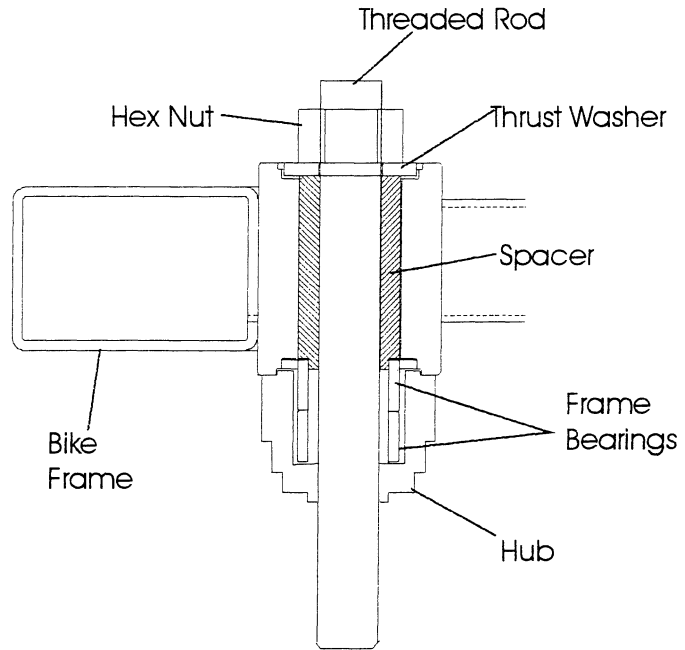
INSTALLING CRANK BEARING KIT

# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Crank Shaft Bearings - Continued

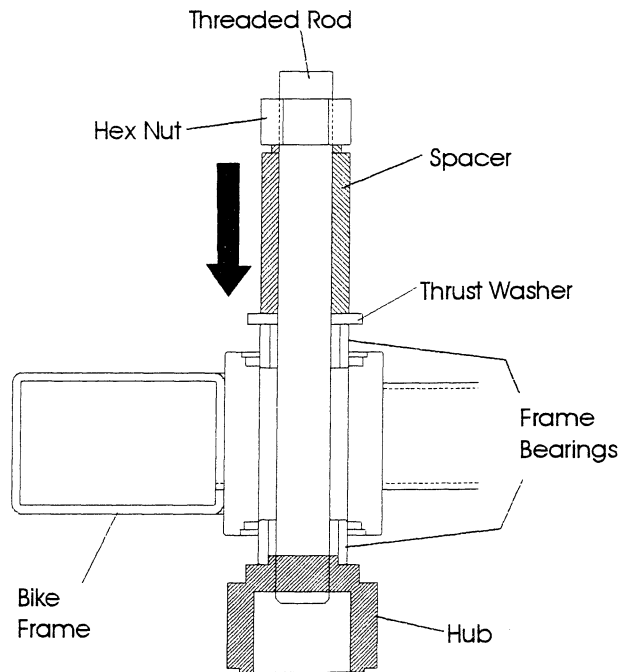
**Special Service Tools: Bearing Service Tool Kit – Part Number: BearingToolKit**

- 8. Press out the frame bearings by rotating the hex nut clockwise until the bearings drop into the puller hub. Once the bearings are out of the frame, disassemble the puller assembly, and discard the bearings.
- 9. Clean the housing before installing new frame bearings.



PUSHING OUT FRAME BEARINGS INTO THE HUB

- 10. Position the new frame bearings with markings (on the face of the bearings), positioned facing out. Make sure bearings are aligned straight and square.

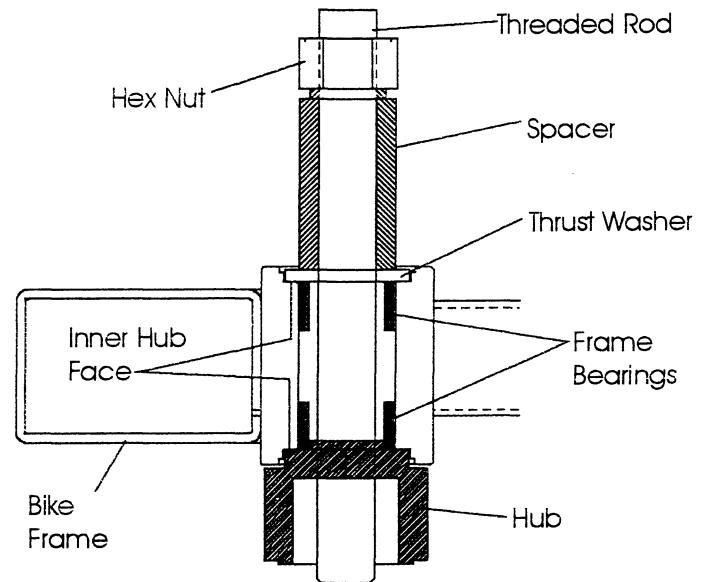


INSTALLING NEW FRAME BEARINGS

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**How To... Replace the Crank Shaft Bearings - Continued**

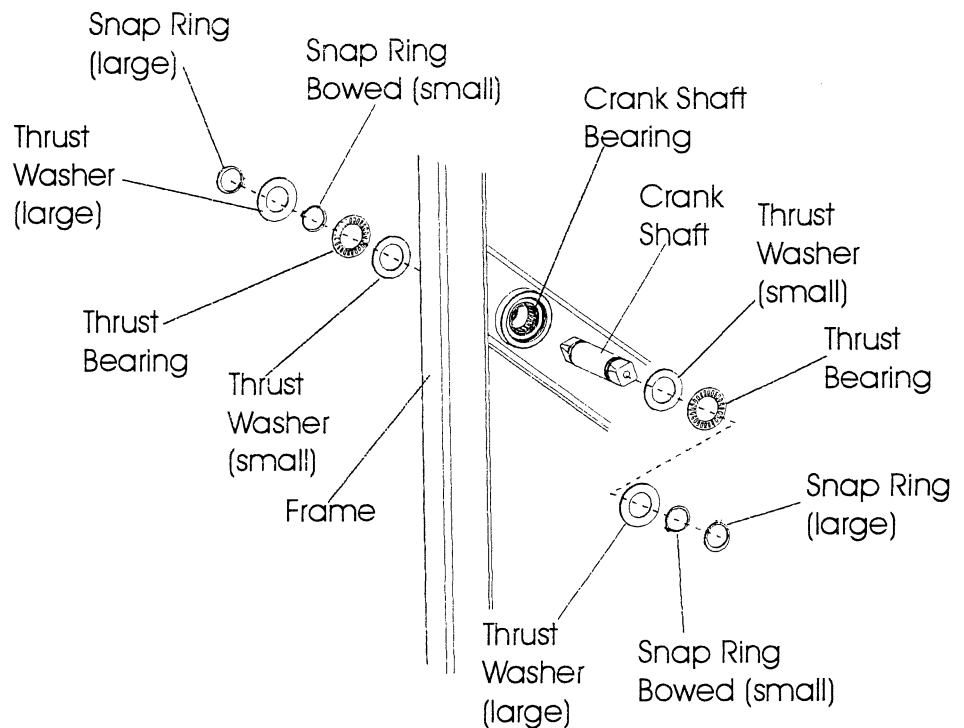
**Special Service Tools: Bearing Service Tool Kit – Part Number: BearingToolKit**

11. Start tightening the hex nut. You may have to hold the spacer to stop it from turning.
12. Continue pressing in the new frame bearings until the thrust washer and hub stop against the frame housing shoulder. Make sure that the bearing races seat flush against the inner hub face.



PRESSING IN NEW BEARINGS

13. Reinstall crank shaft and components. Use the exploded view below to aid in reassembly.
14. Reinstall the hubs.
15. Reinstall the main drive belt.
16. Reinstall the side shrouds, crank arms and pedals.



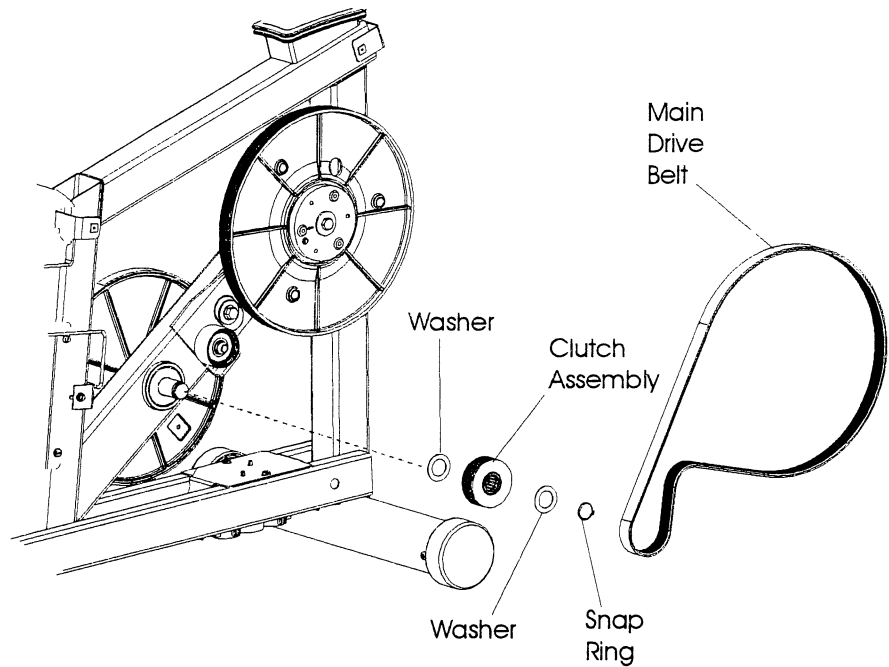
# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Clutch Assembly

**Special Service Tools: NONE**

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1. Remove the right shroud. See "How To..." in this section.
2. Remove the main drive belt. See "How To..." in this section.
3. Remove the snap ring from the intermediate shaft.
4. Remove the washers and clutch assembly. Discard the clutch assembly.
5. Install the new clutch and its parts in reverse order. Make sure to install the step side going into the frame.
6. Install main drive belt.
7. Install shrouds and then pedals.

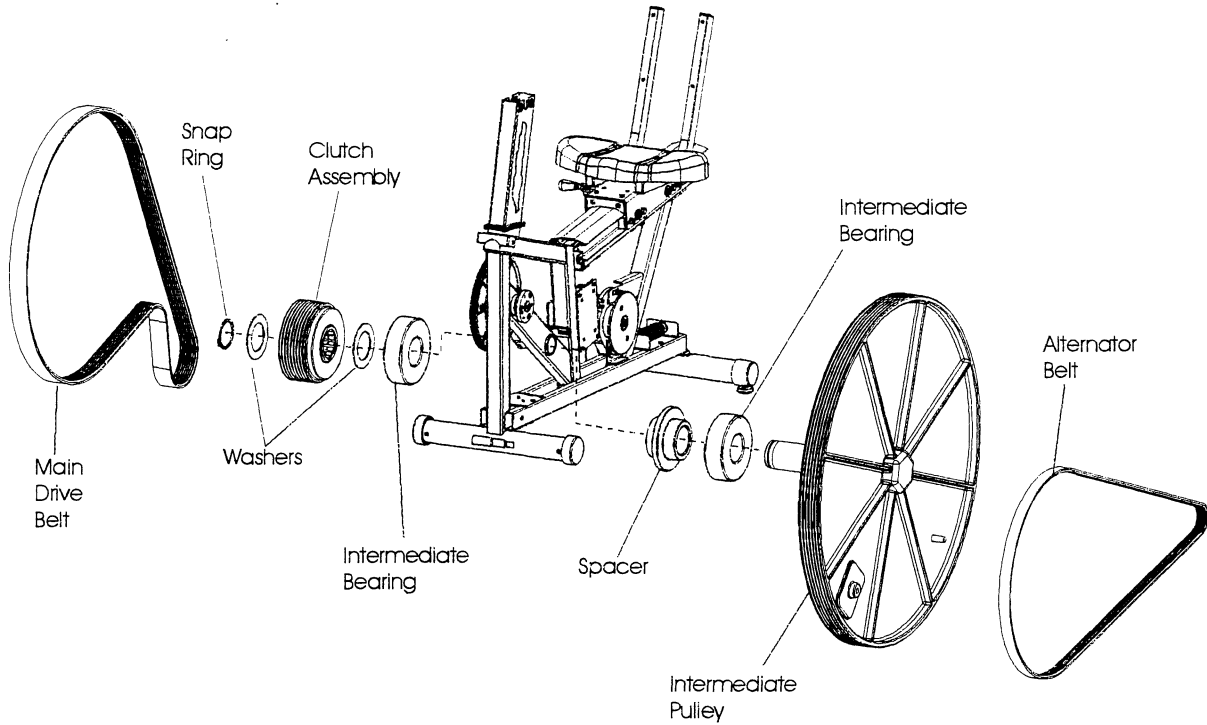


# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Intermediate Pulley Shaft and Bearings

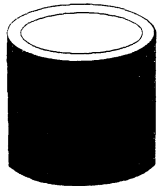
Special Service Tools: Bearing Service Tool Kit – Part Number: BearingToolKit

1. Remove the side shrouds. See "How To..." in this section.

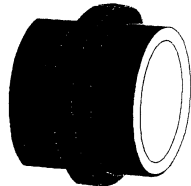


2. Remove the alternator and main drive belt. See "How To..." in this section.
3. Remove the clutch assembly. See "How To..." in this section.
4. Assemble 2-jaw puller to the bike frame at the intermediate pulley shaft as shown.

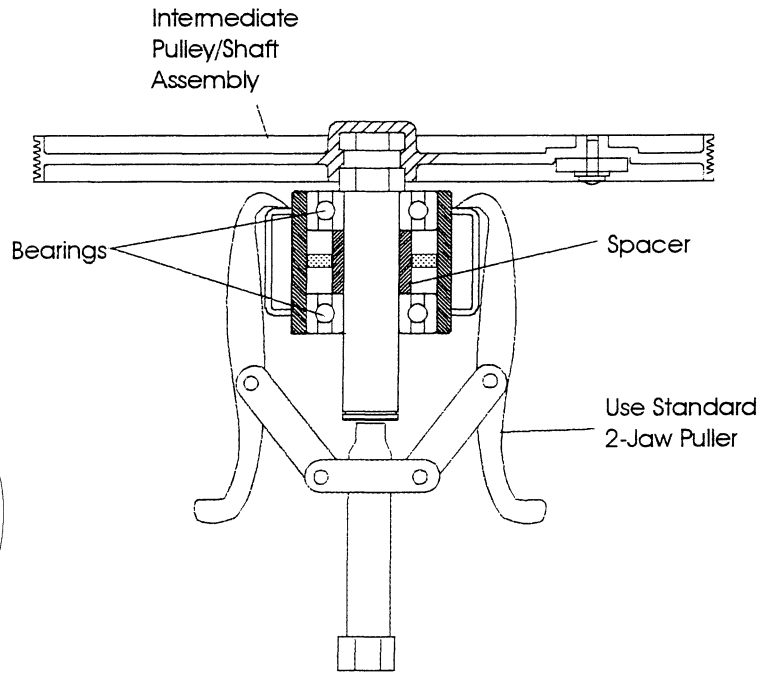
Note: Some bearing spacer may or may not have shoulder on spacer.



Spacer w/o Shoulder



Spacer w/Shoulder



SETTING UP 2-JAW PULLER

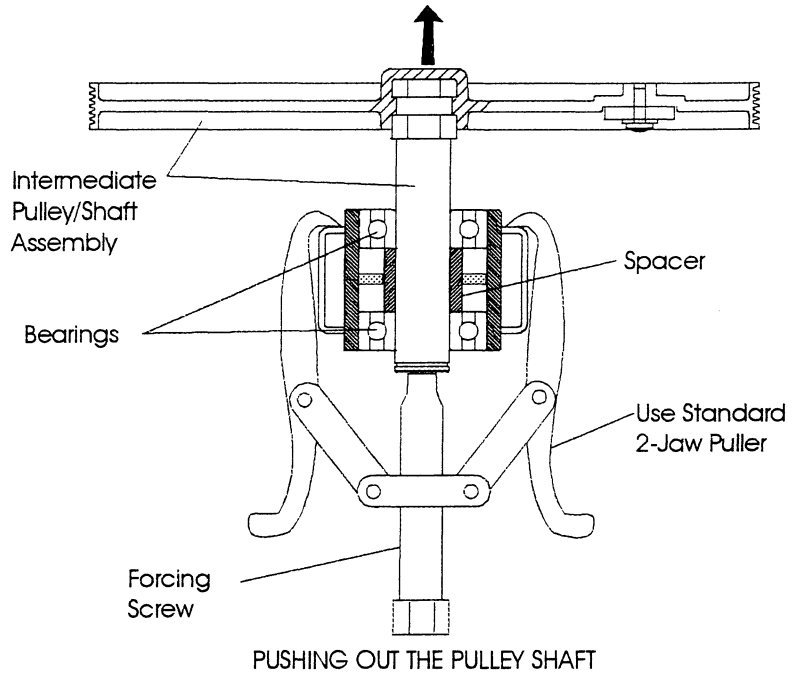


**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**How To... Replace the Intermediate Pulley Shaft and Bearings - Continued**

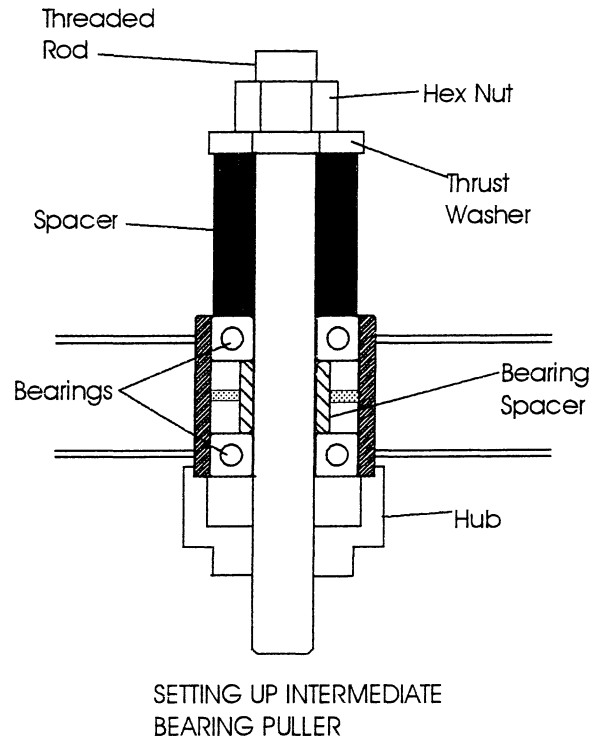
**Special Service Tools: Bearing Service Tool Kit – Part Number: BearingToolKit**

5. Turn the forcing screw clockwise to press out the pulley shaft assembly from the bearings and spacer.
6. Once the pulley shaft is free of the bearings, proceed to remove the bearings.

Note: Do Not replace the pulley without replacing the bearings.



7. Install the bearing puller to the frame as illustrated.

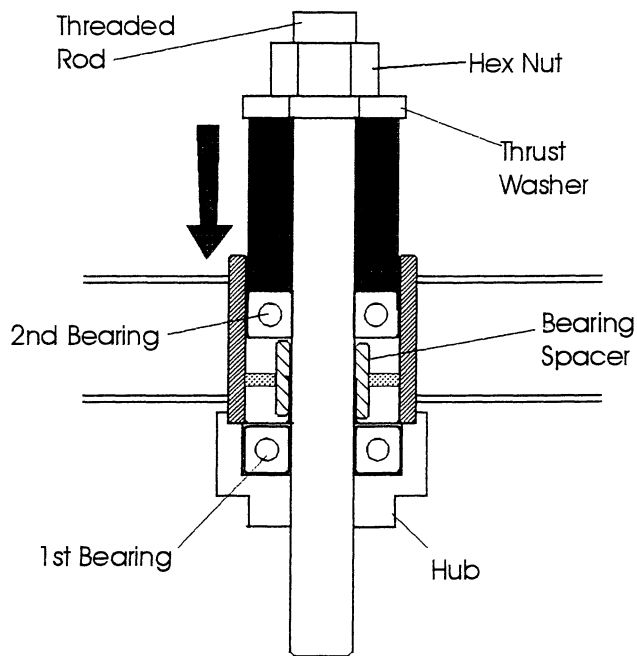


# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Intermediate Pulley Shaft and Bearings - Continued

### Special Service Tools: Bearing Service Tool Kit – Part Number: BearingToolKit

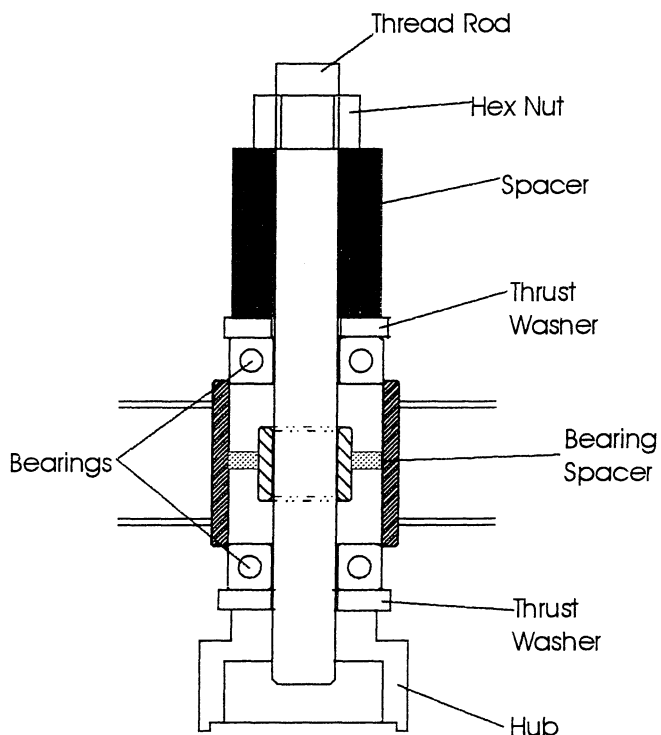
- Turn the hex nut clockwise to push the 1<sup>st</sup> bearing out into the hub. Loosen puller assembly and remove the 1<sup>st</sup> bearing. At this time, remove the free floating spacer.
- Retighten puller assembly and continue tightening until 2<sup>nd</sup> bearing is pressed out of its housing into the hub.
- Remove the puller and discard the bearings.
- Clean the housing.



PUSHING OUT 1st BEARING

- Install the bearing spacer back in the housing, and then position the bearings in the housing.
- Install the puller assembly as shown. Make sure that the hub is reversed. Make sure all parts are aligned straight and square.

Note: The bearings MUST be pressed firmly against the bearing spacer.



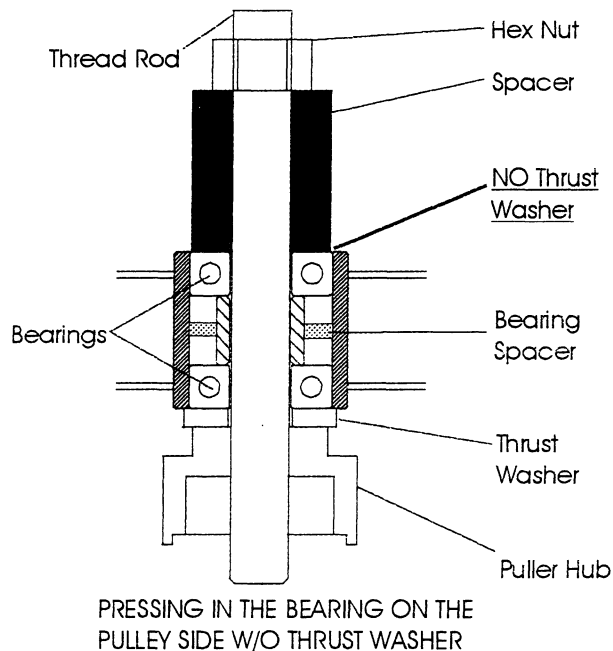
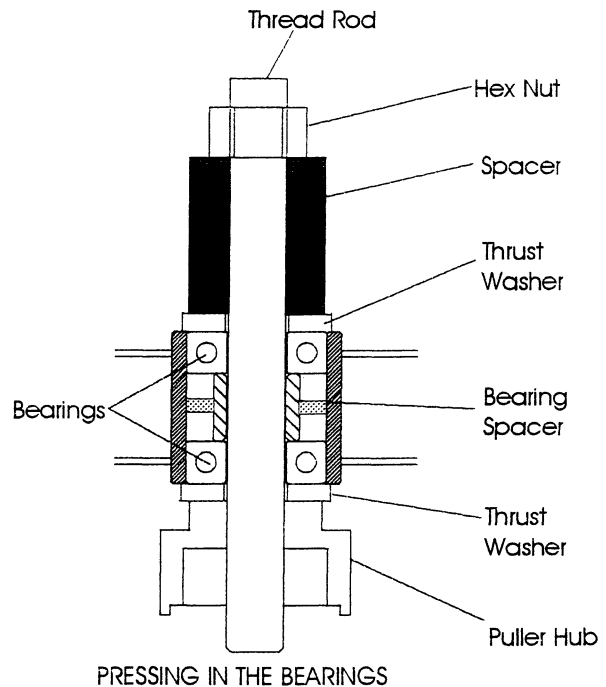
SETTING UP THE PULLER FOR PRESSING IN BEARINGS

# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Intermediate Pulley Shaft and Bearings - Continued

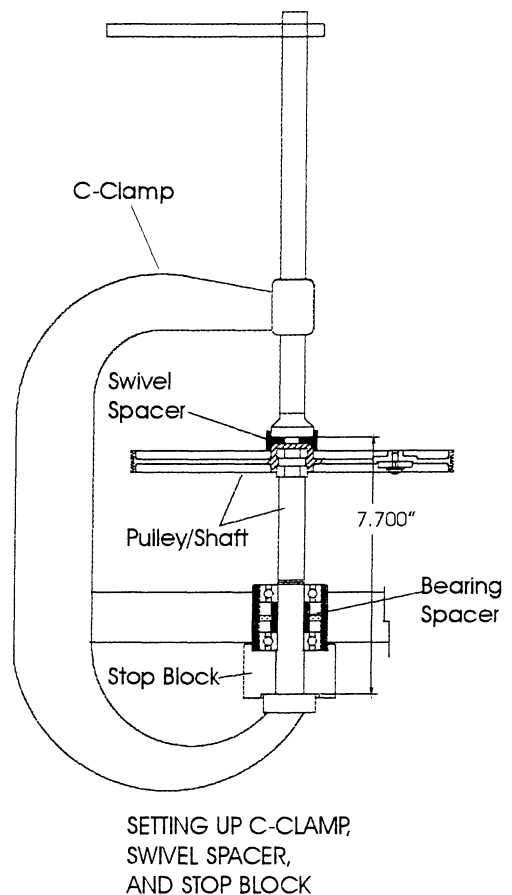
**Special Service Tools: Bearing Service Tool Kit – Part Number: BearingToolKit**

14. Start tightening the hex nut to press in the bearings. Continue pressing in the bearings until the thrust washers(2) stop against the housing shoulder as shown.
15. Remove the puller assembly and check to see that the bearing spacer is securely held in position between the bearings. If so, proceed to press in the intermediate shaft. If the bearing spacer is loose, proceed to the next step.
16. If the bearing spacer is loose, then reinstall the puller assembly without the thrust washer on the side of the intermediate pulley (see illustration below). Continue pressing in the bearing. When the bearing (next to the pulley) is properly seated against the bearing spacer, it will be slightly below flush and the puller hub will be free to spin. Proceed to press in the intermediate pulley/shaft.



17. Position the intermediate pulley/shaft in the housing. Position the swivel spacer on top of the pulley and the stop block against the bottom bearing, then secure the C-clamp as illustrated. Make sure the shaft is aligned straight and square. Also make sure the plastic bearing spacer between the bearings is centered.

Note: Once the pulley/shaft gets started in the bearing, remove the C-Clamp to ensure the bearing spacer is in alignment to receive the shaft, then continue to press in the pulley/shaft.

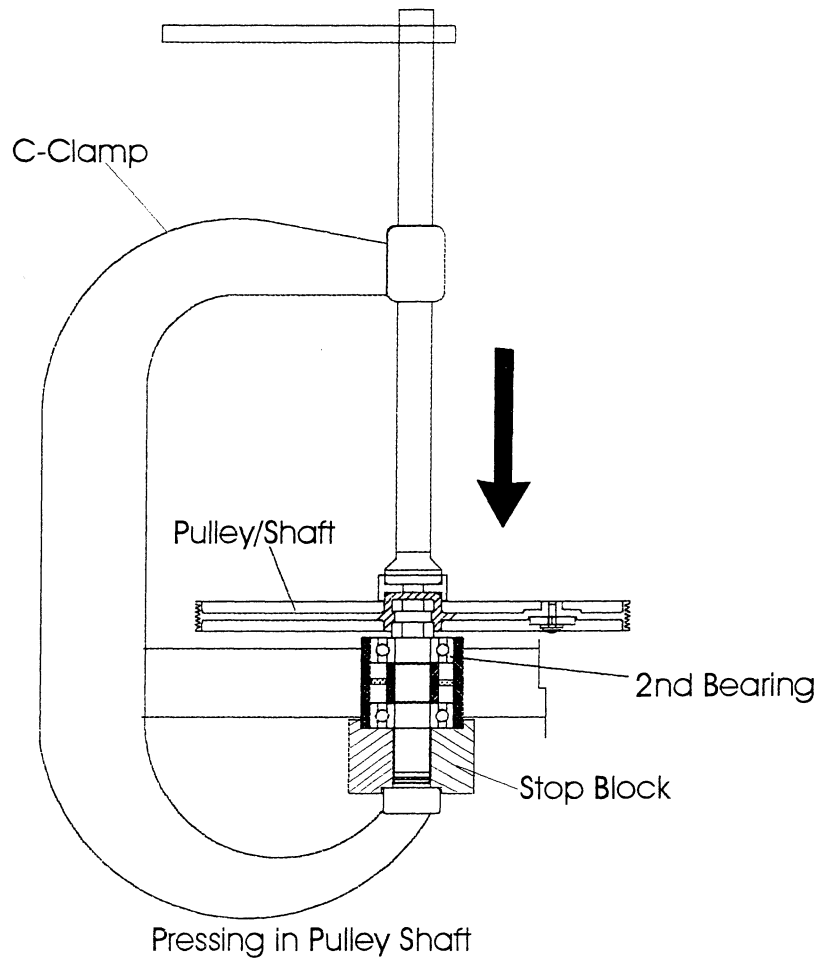


**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**How To... Replace the Intermediate Pulley Shaft and Bearings - Continued**

**Special Service Tools: Bearing Service Tool Kit – Part Number: BearingToolKit**

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18. Press in the pulley/shaft until the shaft bottoms against the 2<sup>nd</sup> bearing.
19. Remove the C-clamp and stop block.
20. Install the clutch assembly.
21. Reinstall alternator belts.
22. Install side shrouds and then the pedals.



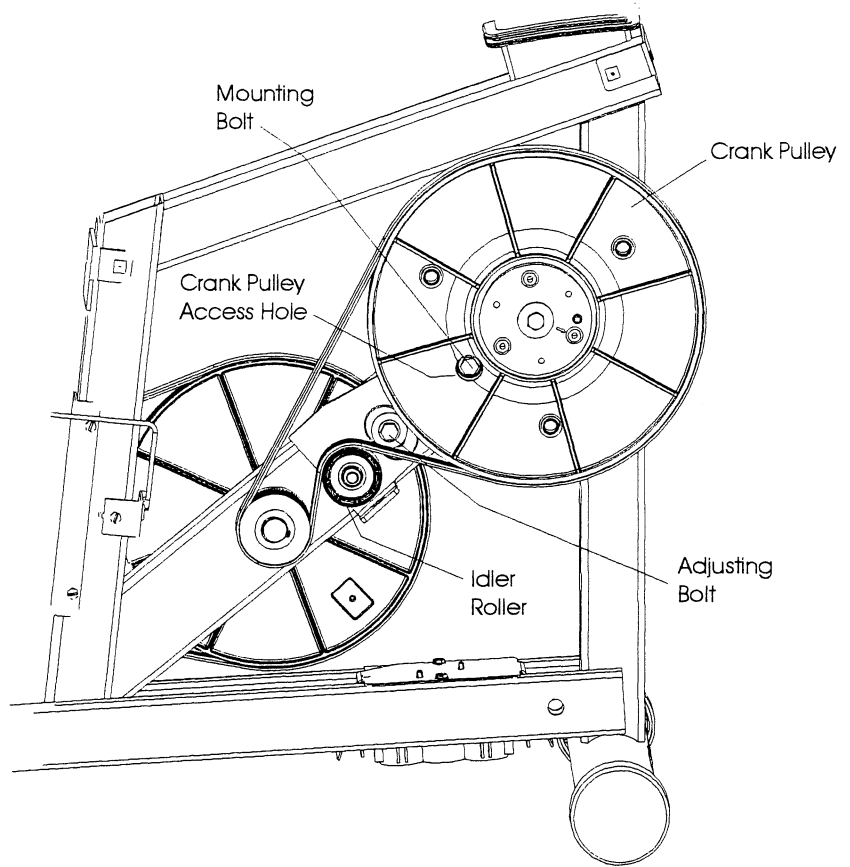
## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

### How To... Replace the Idler Roller

Special Service Tools: NONE

Note: An access hole in the crank pulley exist to allow a socket to access the idler bracket mounting bolt to loosen.

1. Remove the right side shroud. See "How To..." in this section.
2. Rotate the crank pulley until the idler bracket mounting bolt is visible through the access hole in the crank pulley, then loosen this bolt.
3. Loosen the belt tension by loosening the adjusting bolt on the idler bracket.
4. Remove the idler nut and pull off the idler roller. Discard idler roller.
5. Install new idler roller in reverse order.
6. Adjust belt tension 100-110 lbs by moving the idler bracket down. Insert a straight blade screwdriver in the slotted lip of the bracket to obtain specified tension. When belt tension is achieved, then tighten the mounting bolt and adjustable bracket bolt.

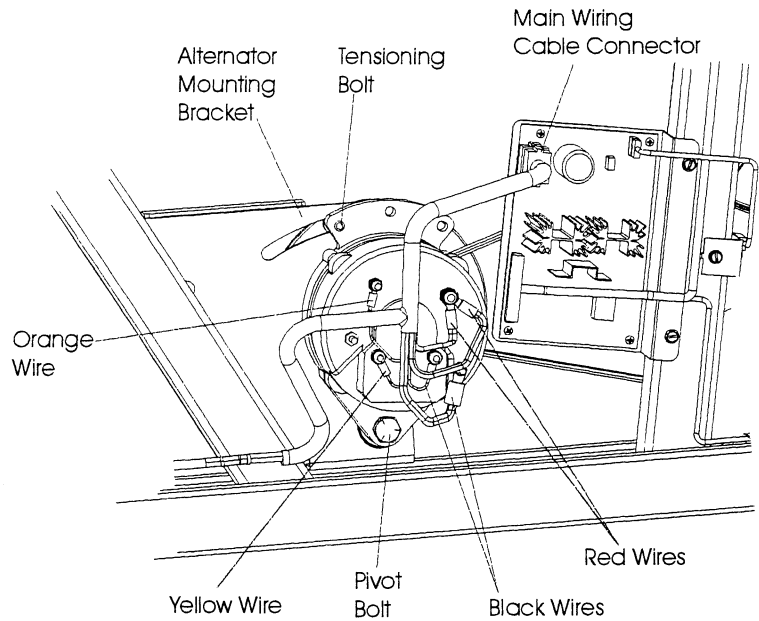


# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

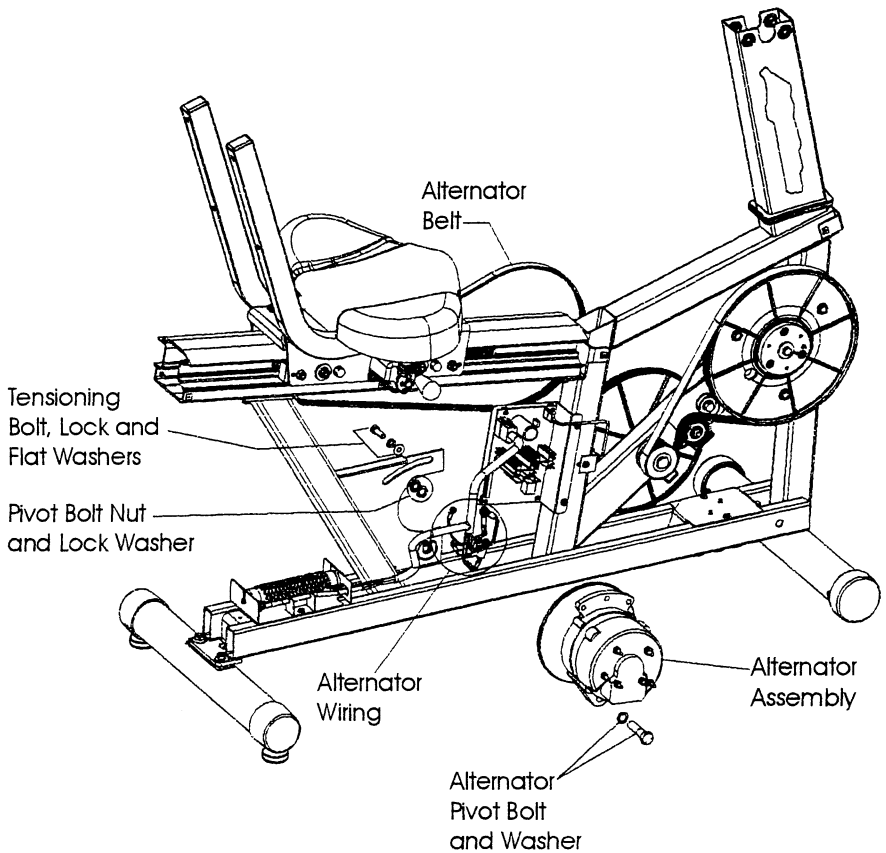
## How To... Replace the Alternator

**Special Service Tools: NONE**

1. Remove the side shrouds. See "How To..." in this section.
2. Remove the alternator belt. See "How To..." in this section.
3. Disconnect the main wiring cable connector from the back of the power control board.
4. Tag and identify all wiring at the back of the alternator, and then remove them from their mounting posts.



5. Index the tensioning bolt to the alternator mounting bracket, and then remove the tensioning bolt and pivot bolt.
6. Remove the alternator and install new alternator in reverse order.

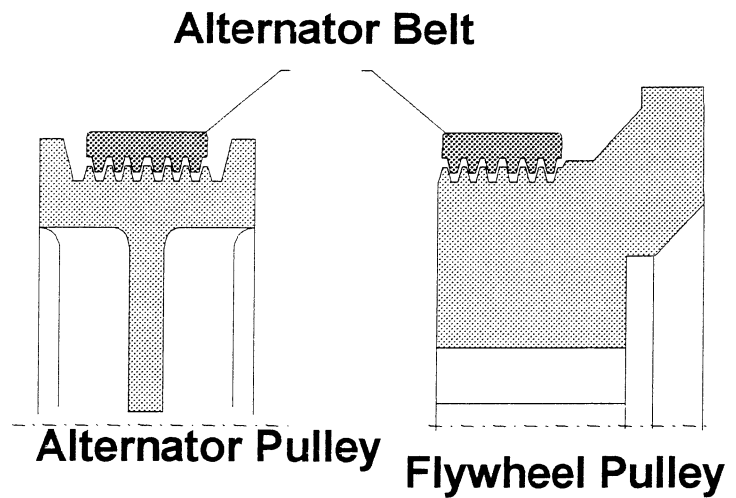


**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**How To... Replace the Alternator - Continued**

**Special Service Tools: NONE**

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7. Make sure to position the alternator belt on the far left groove of the alternator flywheel pulley (towards user side) and in the center of the alternator pulley (large pulley). Tighten the belt back to the index mark or 70-80 lbs.



## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

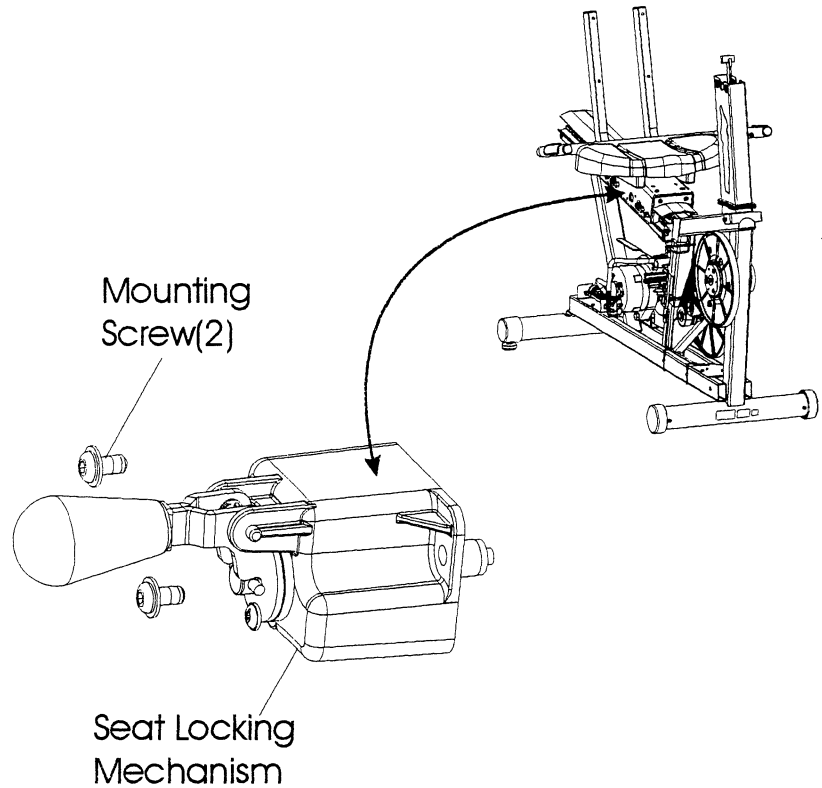
### How To... Replace the Seat Locking Mechanism

**Special Service Tools: NONE**

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Note: Illustration shown without components or shrouds for clarity purpose.

1. Disengage the locking mechanism and slide the seat to its forward most position.
2. Remove the two 5/32 inch mounting screws from the locking mechanism.
3. Remove the locking mechanism.
4. Install new locking mechanism in reverse order.



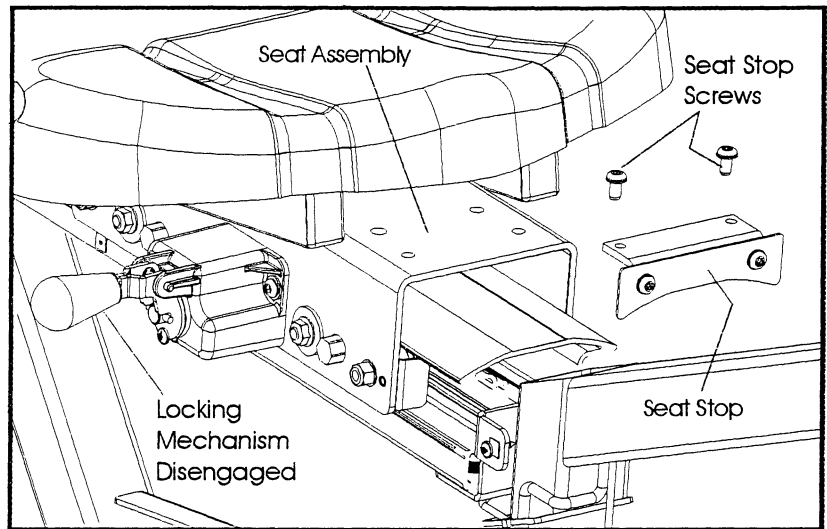


# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Seat Assembly and Extrusion

### Special Service Tools: NONE

1. See "How To..." replace shrouds in this section.
2. Remove the seat stop by removing two screws from the top seat assembly.



3. From under the extrusion, disconnect the flat flex connector from the main cable, then unhook the flat flex cable from the clips.

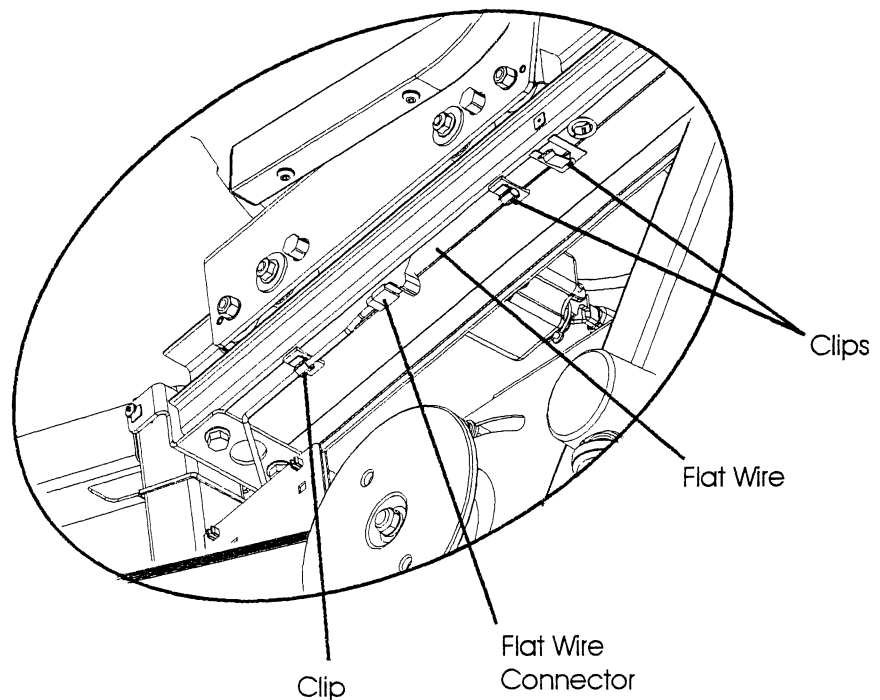
4. Disengage the locking mechanism and carefully back the seat assembly off the extrusion while guiding the flat flex cable out the seat extrusion.

5. If necessary to replace the extrusion, remove four mounting bolts under the extrusion, and lift off the extrusion.

6. Install extrusion in reverse order.

7. Install new seat assembly in reverse order of removal.

8. Adjust seat rollers. See "How To..." in this section.



# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace and Adjust Seat Rollers

Special Service Tools: NONE

**Note:** The seat rollers are adjusted to a specified resistance load. If the seat moves too freely with excessive side-to-side movement, then the seat rollers must be adjusted as follows.

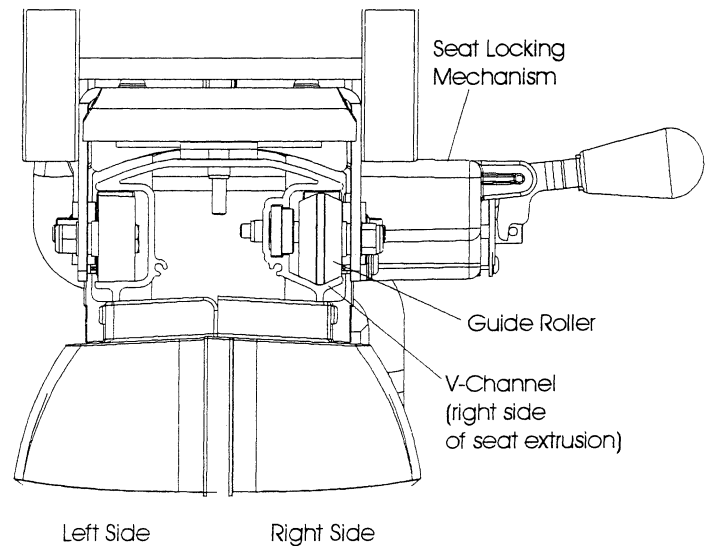
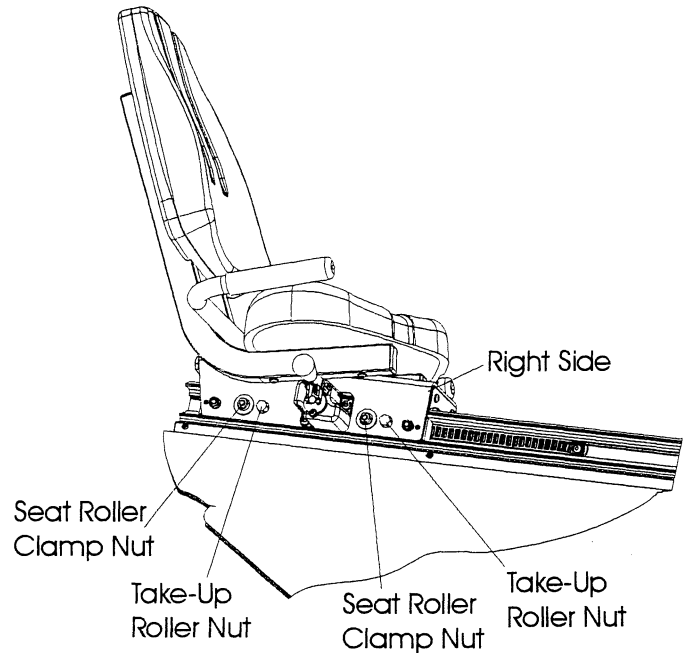
1. Using a ½ inch wrench, loosen all four(4) seat roller clamp nuts, then retighten by hand.

**NOTE:** In this step, you must make initial adjustments to the seat rollers on the right side of the unit first. This is done to insure that the two right guide rollers are properly seated in the V-channel of the seat extrusion. Once the seat rollers on the right side are adjusted, then proceed to adjust the seat rollers on the left side of the unit.

The following requires use of two, inch pound torque wrenches. One to maintain a resistance load against the take-up roller and the other to torque the roller clamp nut.

2. Starting with the right side seat rollers, adjust the first take-up roller nut to 60-65 in. lbs. in a clockwise direction. Observe that the roller clamp nut will move up. This indicates that the seat roller is being forced up against the extrusion. Continue to maintain the 60-65 in. lbs. resistance load on the take-up roller, and secure the seat roller position by tightening the roller clamp nut from 100-120 in. lbs. Repeat this procedure for other remaining right roller. Once the right side is adjusted, repeat this procedure for the left side. Always set the right side seat rollers first. Failure to do so, will result in side-to-side seat movement.

3. With all seat rollers adjusted, test operation of the seat assembly for a 15-25 lbs. pulling force and to insure that no side-to-side movement exists. Repeat this procedure as required.



## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

### How To... Replace the Seat Pad and Handlebar Assembly

Special Service Tools: NONE

#### (Seat Pad)

1. Remove four Allen screws and washers from the frame under the seat pad, and lift off the seat pad from the seat assembly frame.

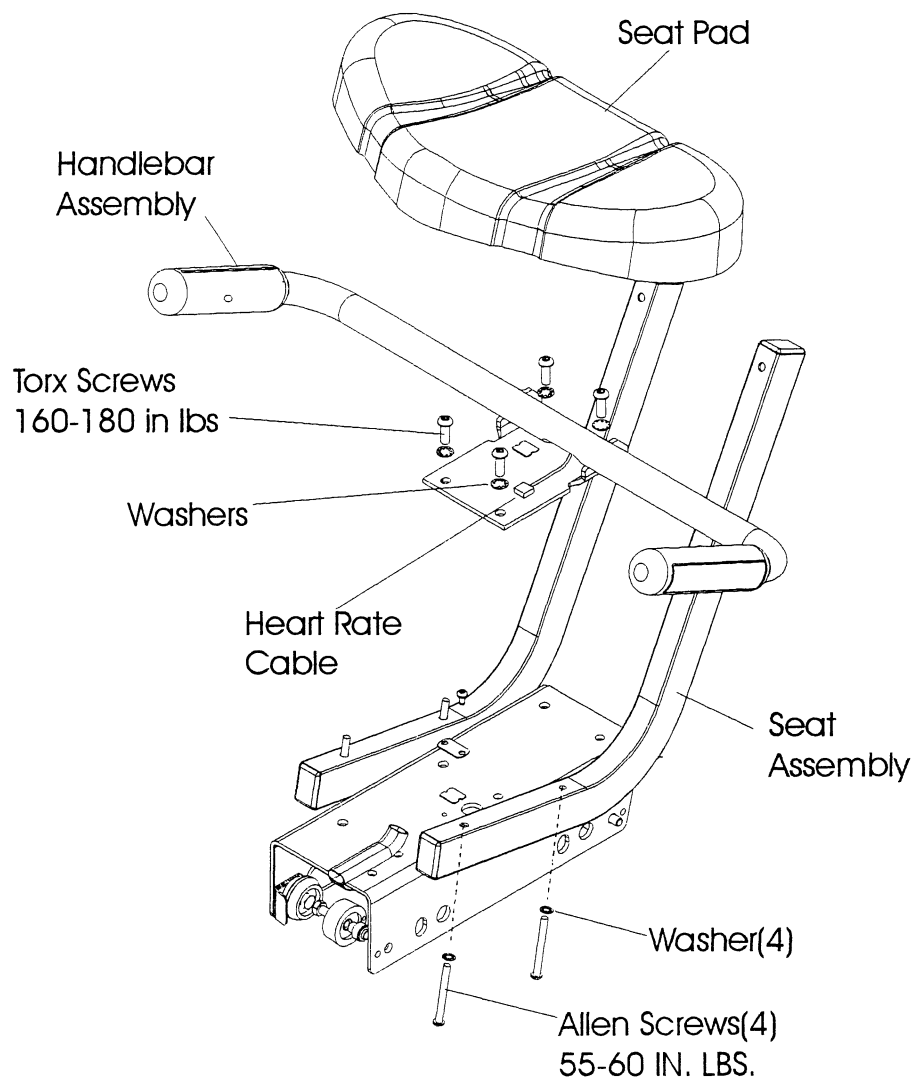
#### (Handlebar Assembly)

2. If equipped, disconnect the heart rate sensor connector.
3. Remove four TORX screws and washers securing the handlebar assembly to the seat assembly frame, and lift off the handlebar.

#### (Installation)

Install handlebar in reverse order of removal. **Tighten TORX screws 160-180 in. lbs.**

Install seat pad in reverse order of removal. **Tighten Allen screws 55-60 in lbs.**



## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

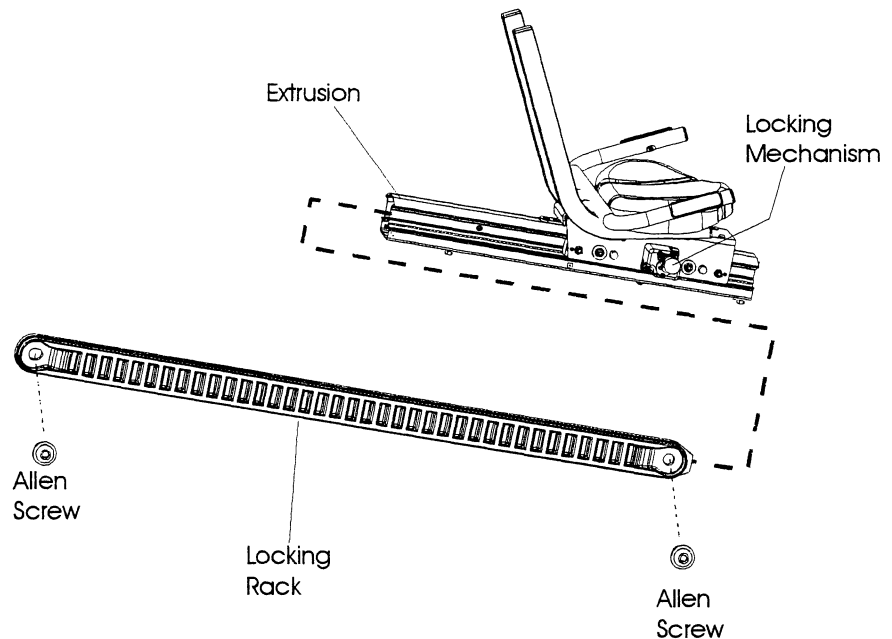
### How To... Replace the Locking Rack

Special Service Tools: NONE

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**Note:** The locking racking is located on the right side of the extrusion. The rack allows the locking mechanism to engage the locking rack to secure the seat assembly at a desired location along the rack. To replace the rack, proceed as follows:

1. Disengage the locking mechanism and slide seat assembly to the rear of the extrusion and lock in place.
2. Remove the Allen screw at the front of the locking rack.
3. Disengage locking mechanism and slide the seat assembly forward to the front end of the extrusion.
4. Remove the Allen screw from the rear of the locking rack.
5. Slide the locking rack out of the extrusion.
6. Replace the locking rack in the reverse order of removal. Torque the Allen screws 50-55 in lbs.



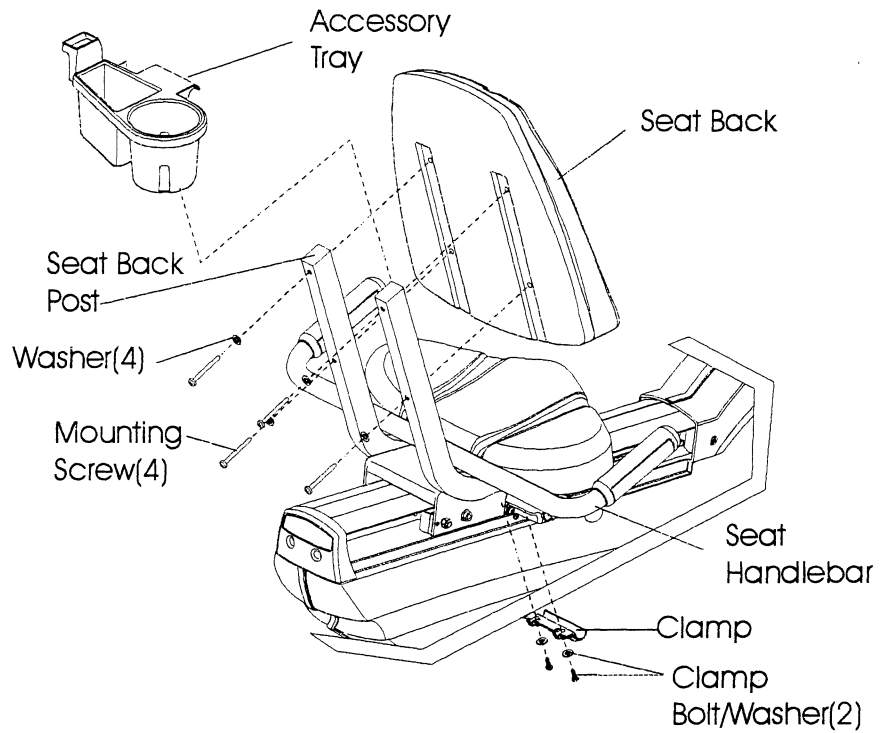
## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

### How To... Replace the Accessory Tray

Special Service Tools: NONE

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1. Remove four Allen screws and washers securing the seat back.
2. Remove the seat back and set it aside.
3. Remove the accessory tray clamp bracket from around the seat handlebar.
4. Install new accessory tray in reverse order of removal.

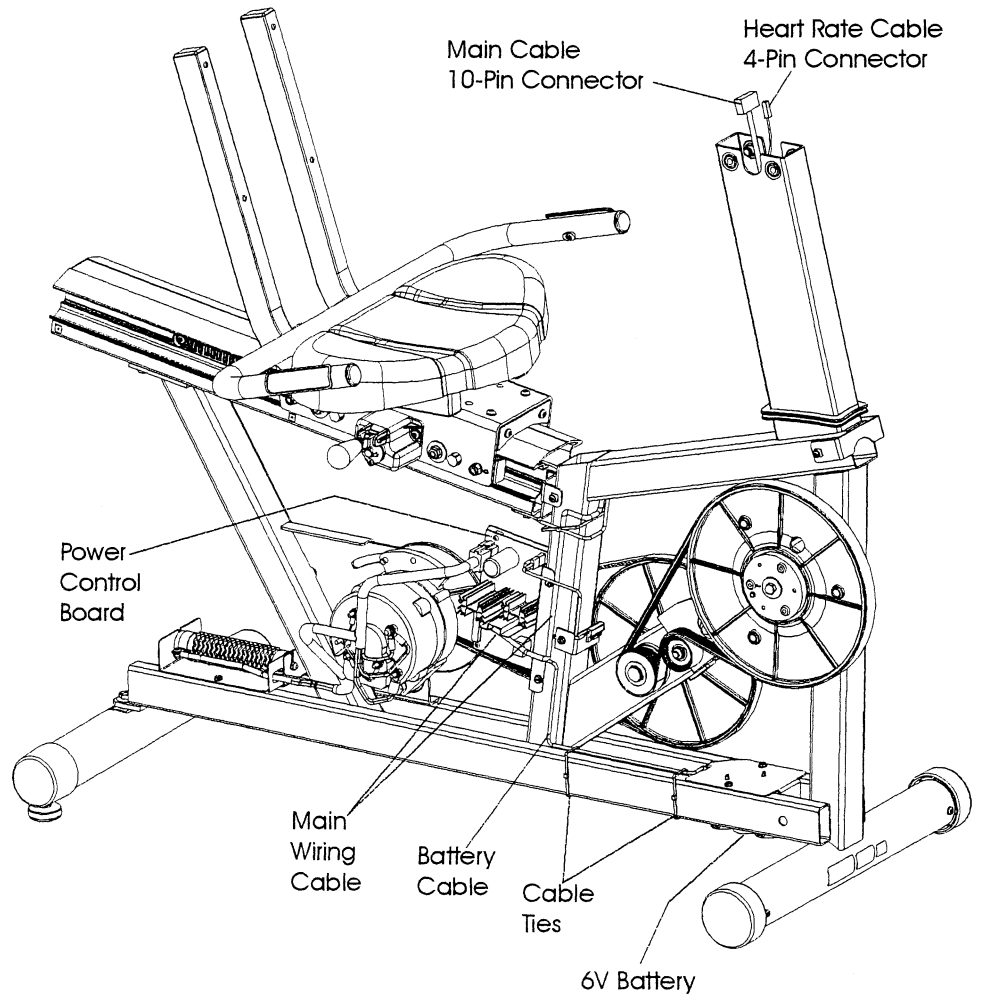
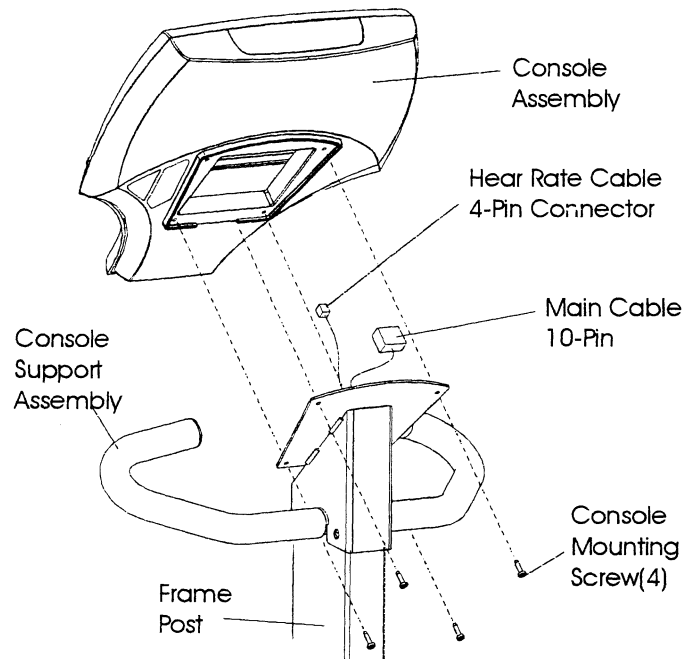


# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Main Cable

### Special Service Tools: NONE

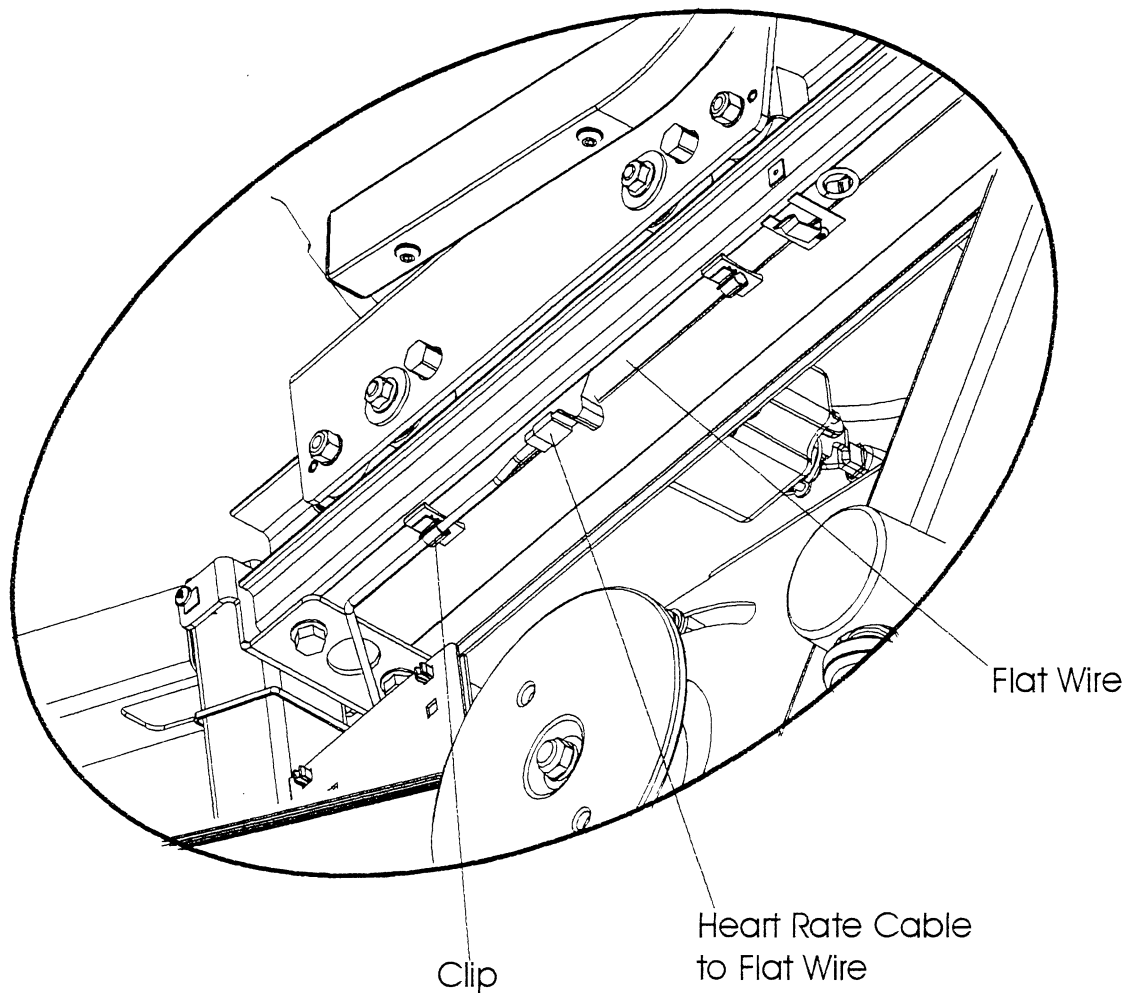
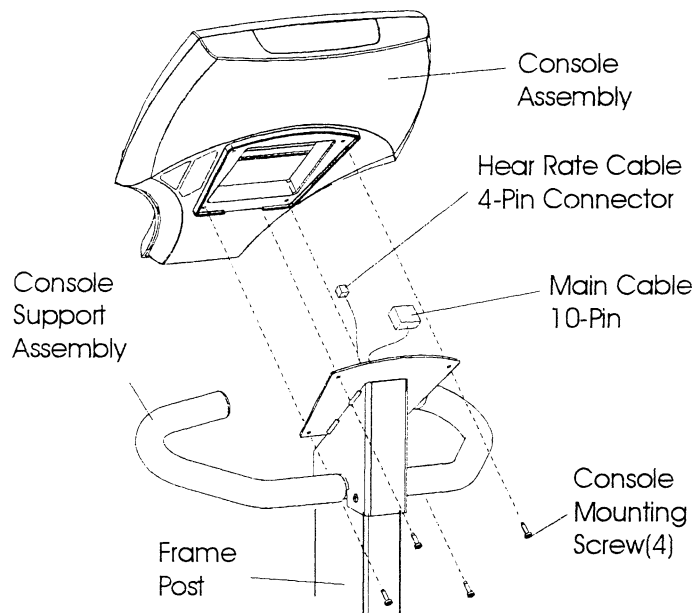
1. Remove the side shrouds. See "How To..." in this section.
2. Remove the display console. See "How To..." in this section.
3. Remove the console support assembly. See "How To..." in this section.
4. Disconnect the main cable (10-pin connector) from the power control board (PCB).
5. Disconnect two wires from the 6V Battery. Disconnect the BLACK (neg) wire from the (-) terminal and the RED (pos) wire from the (+) terminal.
6. Cut the cable ties along the frame.
7. Disconnect the main cable 10-pin connector from the power control board (PCB).
8. Pull the main cable out from the console post.
9. Install new main cable through the console post in reverse order.



## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes How To... Replace the Heart Rate Cable

Special Service Tools: NONE

1. Remove the side shrouds. See "How To..." in this section.
2. Remove the display console from the console support assembly and then, disconnect the main cable and the heart rate cable. See "How To..." in this section.
3. Disconnect the heart rate cable (4-pin connector) from flex cable under the bottom frame.
4. Remove the heart rate cable from the clip along the bottom of the frame.
5. Pull the heart rate cable out from the console post.
6. Install new heart rate cable through the console post in reverse order.

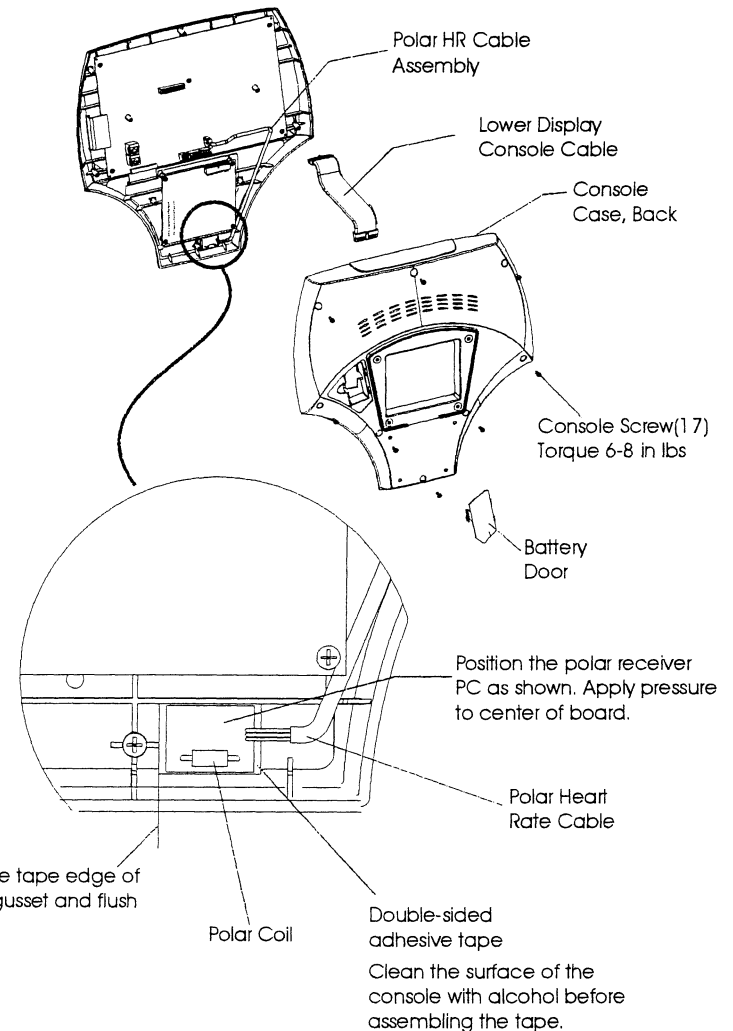
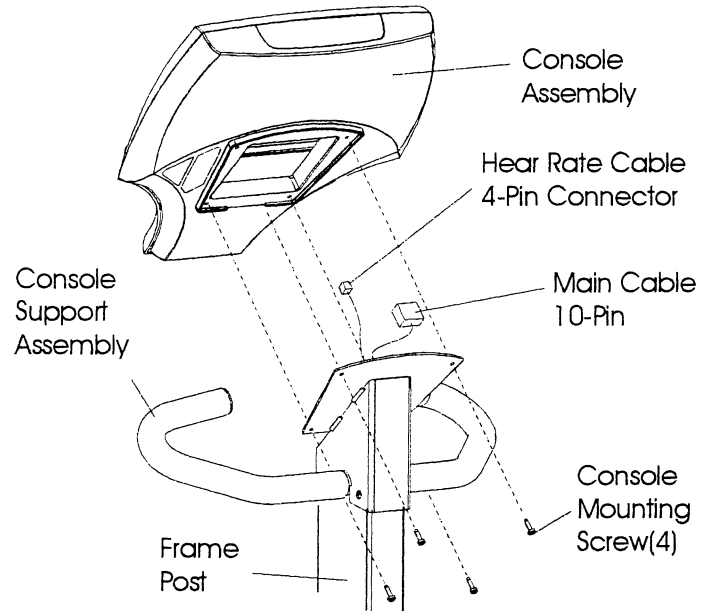


# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the Polar Receiver

**Special Service Tools: NONE**

1. Remove the side shrouds. See "How To..." in this section.
2. Remove the display console from the console support assembly and then, disconnect the main cable and the heart rate cable. See "How To..." in this section.
3. Disconnect the heart rate cable (4-pin connector) from flex cable under the bottom frame.
4. Remove the heart rate cable from the clip along the bottom of the frame.
5. Pull the heart rate cable out from the console post.
6. Split the two halves of the console by removing the screws holding the case halves together.
7. Remove the polar receiver and replace with new one. See illustration.



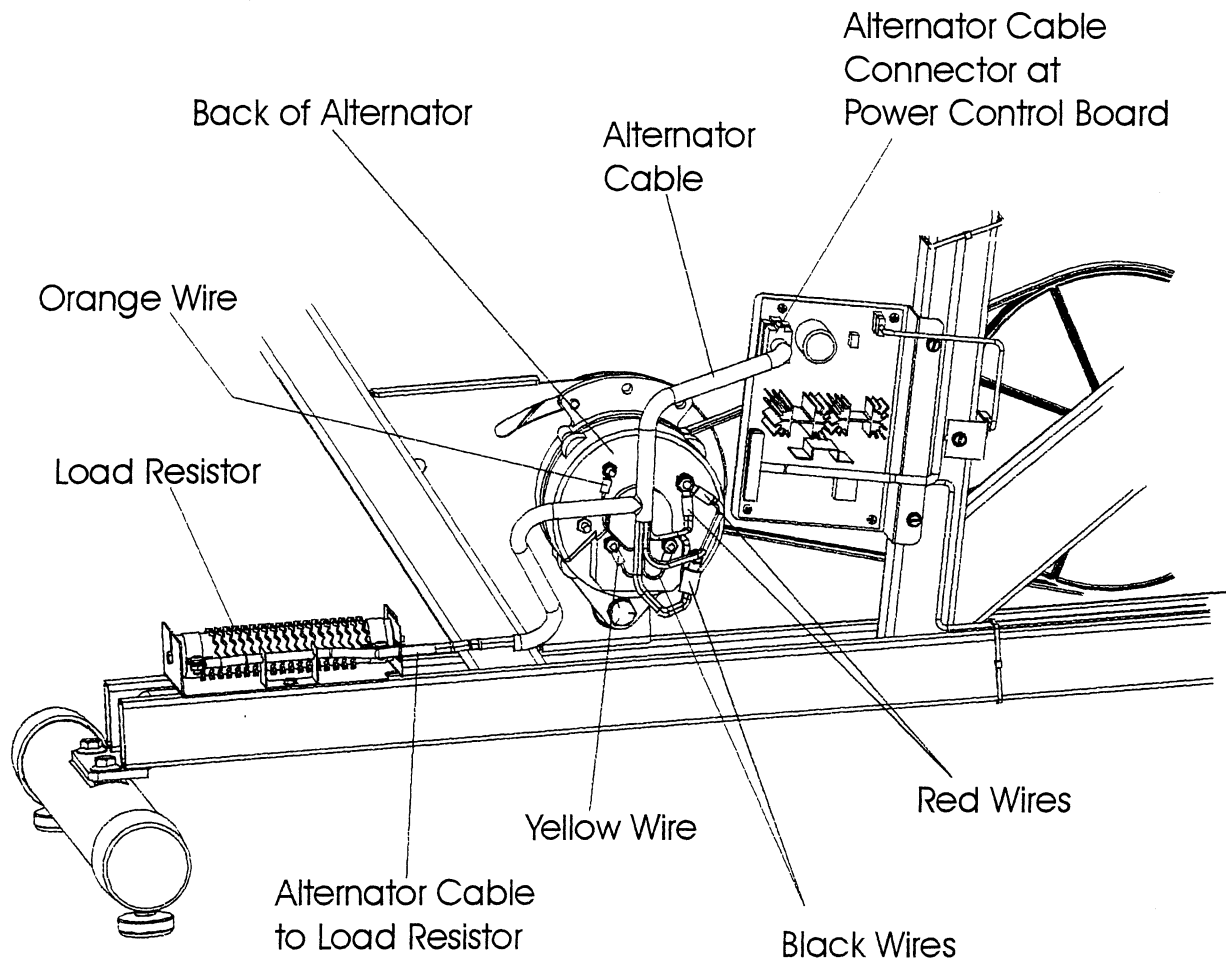


## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

### How To... Replace the Alternator Cable

Special Service Tools: NONE

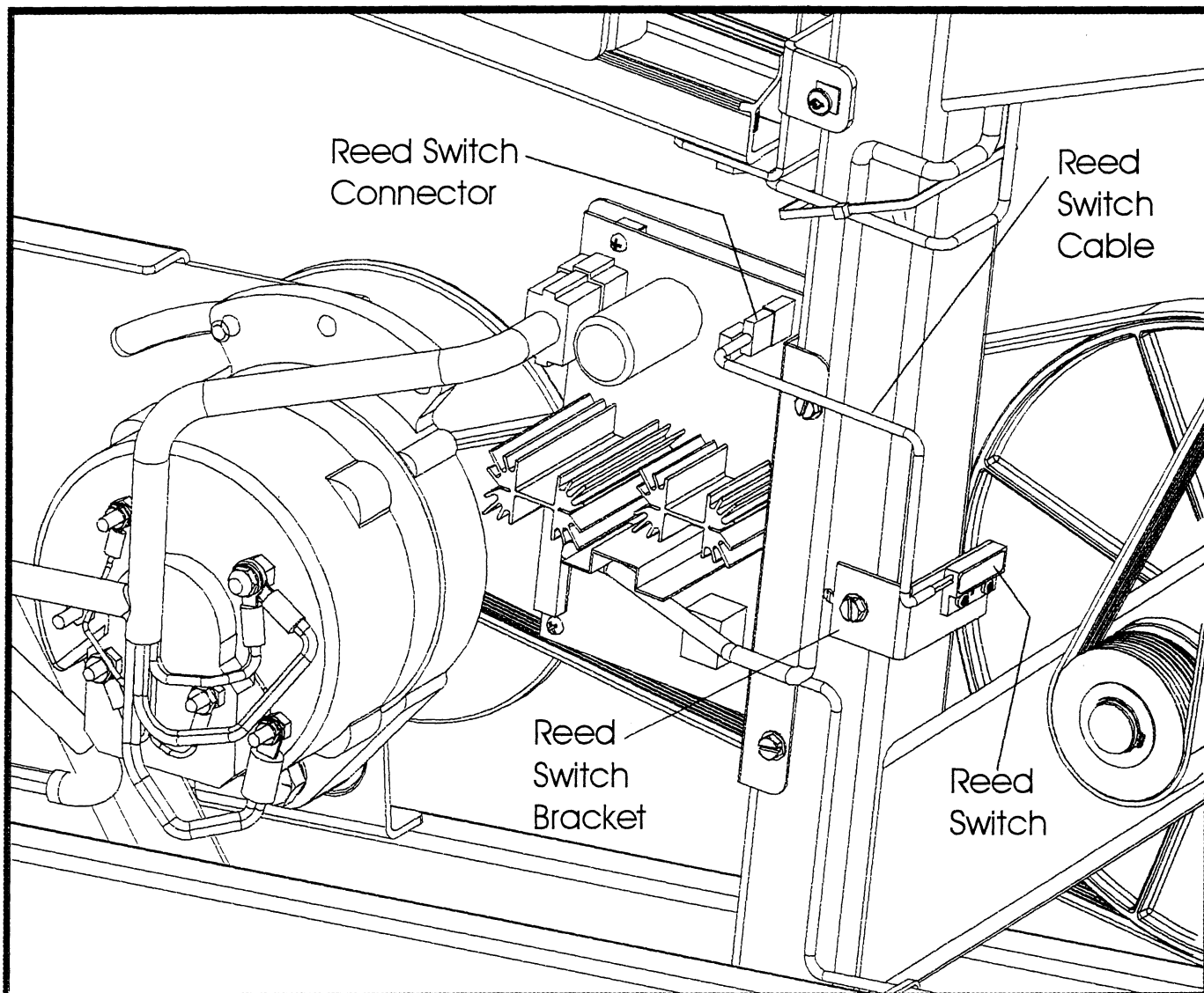
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1. Remove the side shrouds. See "How To..." in this section.
2. Disconnect the alternator cable connector from the power control board (PCB), and then remove the other end of the cable from the load resistor.
3. Before disconnecting any wires from the alternator terminals, mark and tag each terminal post to its appropriate wire.
4. With the alternator wires marked and tagged to their corresponding terminals, remove the alternator wires from the back of the alternator.
5. Cut any cable ties, and remove the alternator cable.
6. Install new alternator cable in reverse order.

## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes How To... Replace the Reed Switch and Cable

Special Service Tools: NONE



1. Remove the side shrouds. See "How To..." in this section.
2. Disconnect the reed switch connector from the power control board (PCB).
3. To replace just the reed switch cable assembly, remove two screws securing the reed switch it to the bracket.
4. To replace both the reed switch cable assembly and bracket, remove the screw securing the bracket to the frame.
5. Cut any cable ties, and remove the reed switch cable assembly.
6. Install new reed switch cable assembly in reverse order.

## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes How To... Replace the 9-Volt Console Battery (LC8500R and R7)

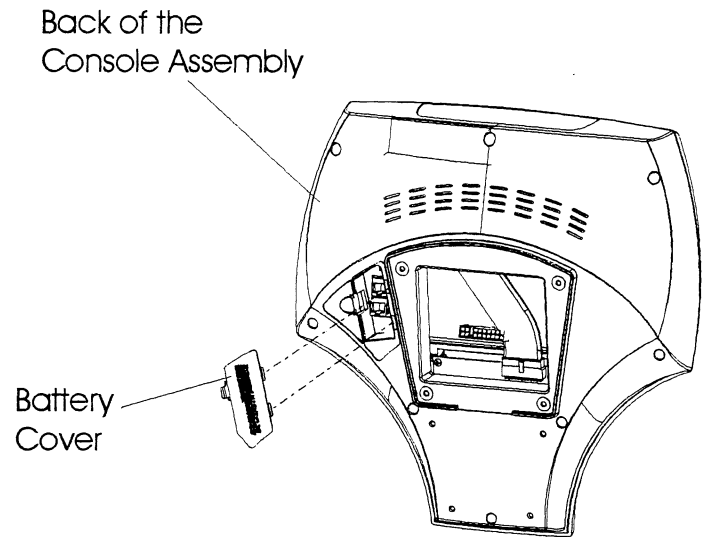
Special Service Tools: NONE

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**NOTE:** Console removed for clarity.

**NOTE:** The 9V battery is located in back of the console. To access:

1. Remove the cover at the back of the console to reveal the battery.
2. Unplug the connector, and remove the battery from the console.
3. Install new battery in reverse order.



# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## How To... Replace the 6-Volt Battery (LC95R, LC91R and R9)

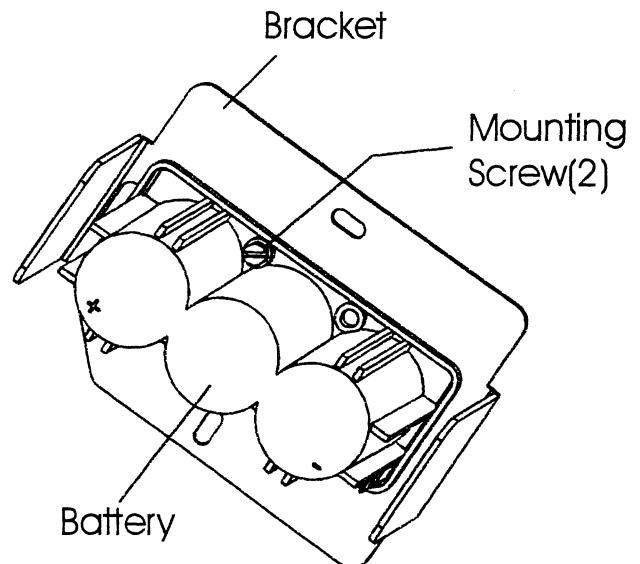
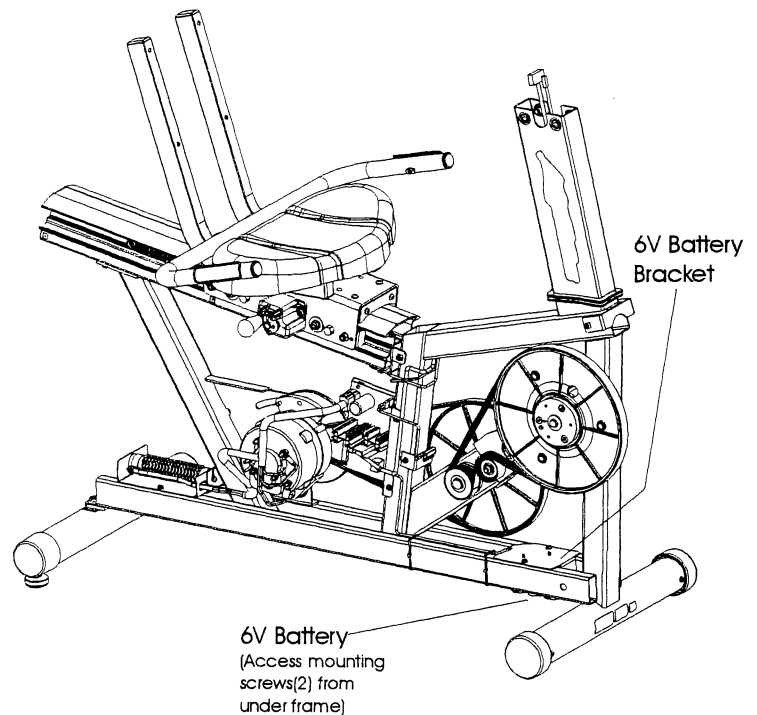
Special Service Tools: NONE

**Note:** It is not necessary to remove the shrouds for this procedure unless, the battery bracket requires replacement.

1. Tilt the bike on its side.
2. Remove the two mounting screw securing the battery to the bracket. Remove the battery just enough to access and disconnect the BLACK (neg) wire from the (-) terminal and the RED (pos) wire from the (+) terminal.

**Note:** If the battery bracket requires replacement, then remove the left or right side shroud and then, remove two mounting screws securing the bracket to the frame.

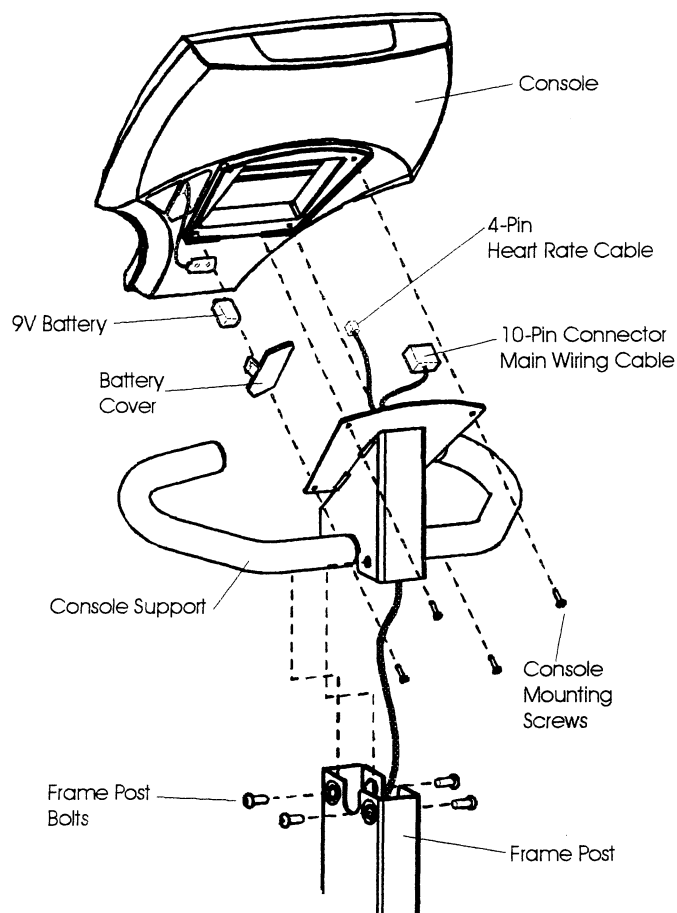
3. Reconnect the BLACK (neg) wire to the (-) terminal on the battery, and the RED (pos) wire to the (+) terminal, and then secure the battery to the mounting bracket with the two mounting screws.
4. Lift the bike to its upright position.



## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes How To... Replace the Display Console and Console Support

**Special Service Tools: NONE**

1. Remove four mounting screws from the back of the console at the console support.
2. Lift the console up just enough to disconnect the 10-pin main wiring connector, and if equipped, the 4-pin heart rate cable.
3. Remove the console from the console support.
4. Remove four frame post bolts securing the console support.
5. Lift out the console support from the frame post be careful of the wiring.
6. Install console and console support in reverse order of removal.

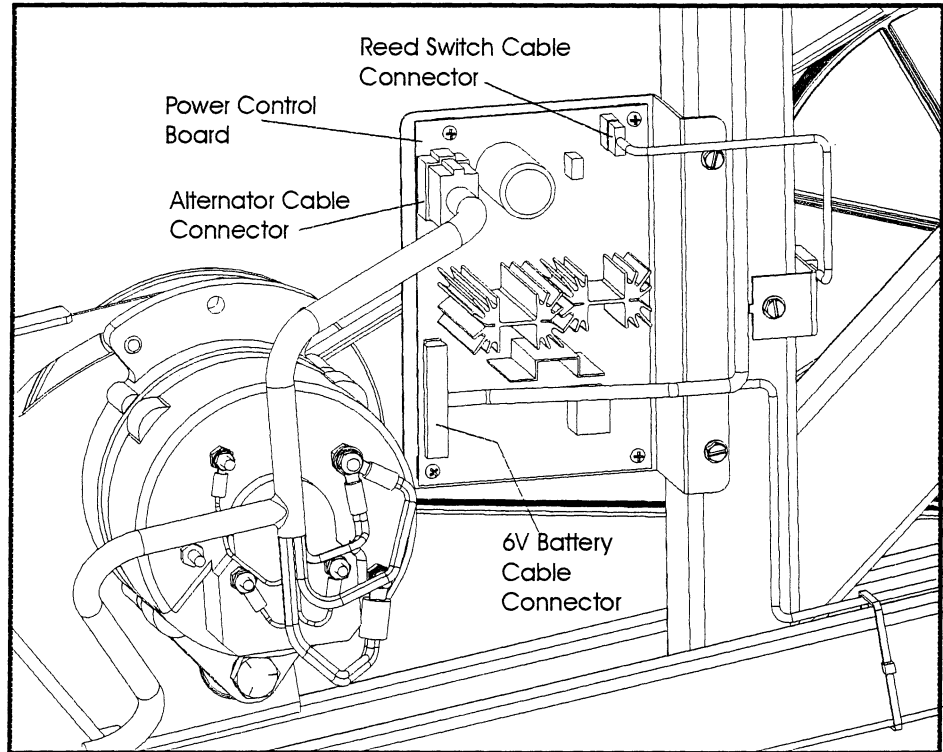


# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

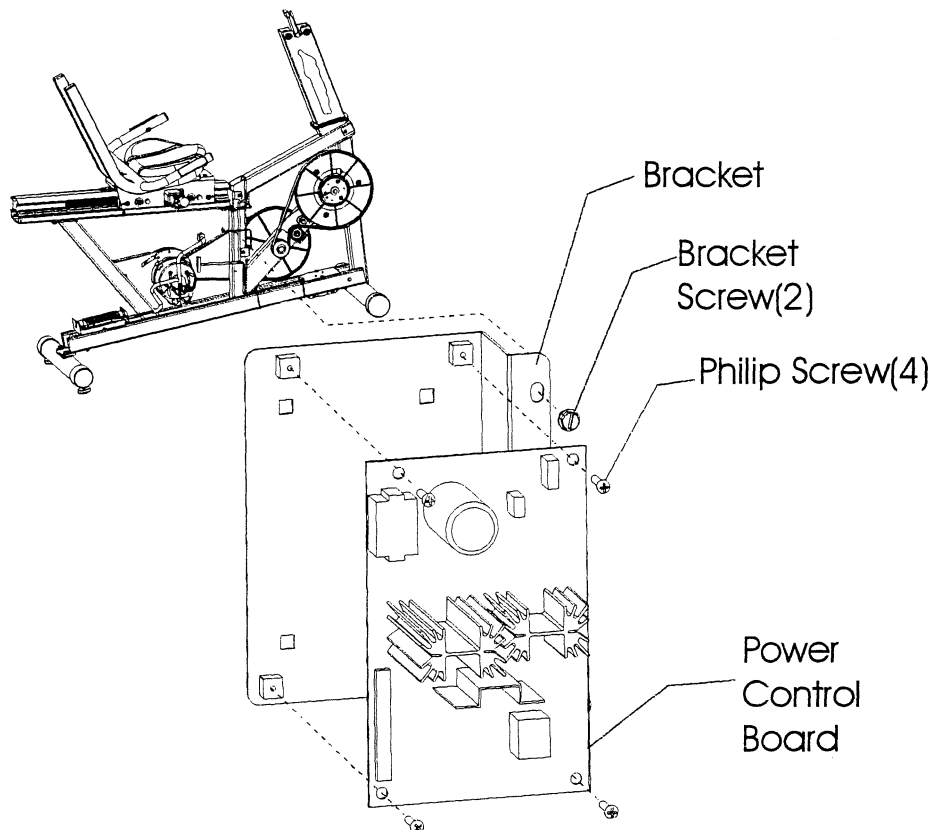
## How To... Replace the Power Control Board

Special Service Tools: NONE

1. Remove the left side shroud. See "How To..." in this section.
2. Disconnect the alternator cable connector, reed switch cable connect, and battery cable connector from the power control board.



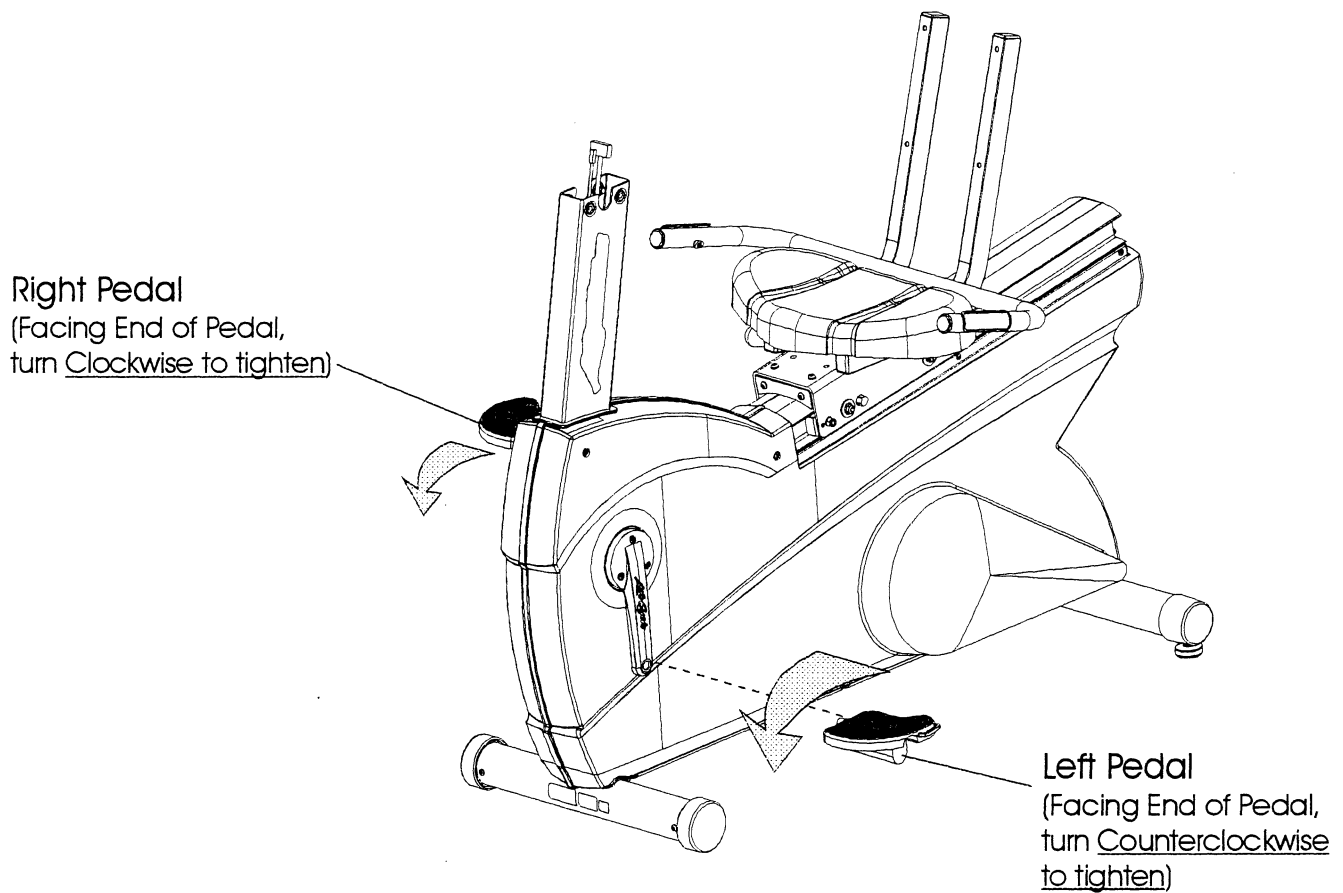
3. Remove four screws securing the PCB to the bracket.
4. If necessary to replace the mounting bracket, remove two screws secured to the frame.
5. Install new PCB board in reverse order.



## *Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes* How To... Replace the Pedal

Special Service Tools: NONE

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1. Remove the right pedal by turning it counterclockwise.
2. Install the right pedal by turning it clockwise.
3. Remove the left pedal turning it clockwise.
4. Install the left pedal turning it counterclockwise.

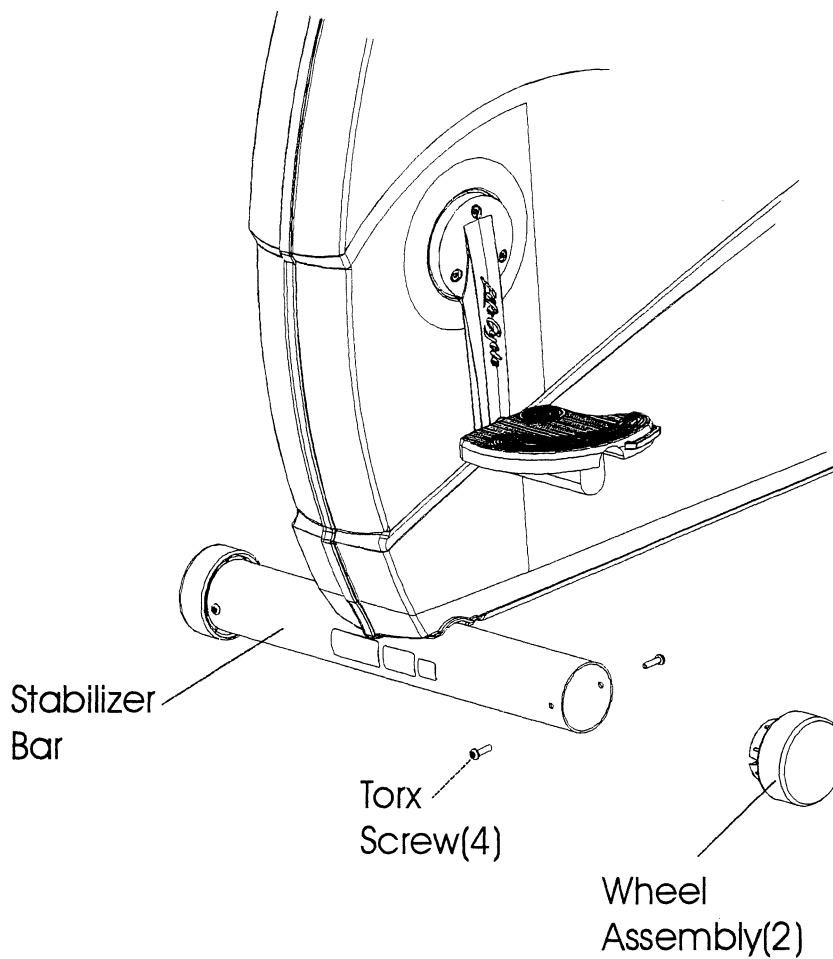
## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

### How To... Replace the Front Wheel Assembly

Special Service Tools: NONE

---

1. Remove two TORX screws from each side of the stabilizer bar.
2. Pull the wheel assembly out from the ends of the stabilizer bar.
3. Install new front wheel assemblies in the reverse order.





## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

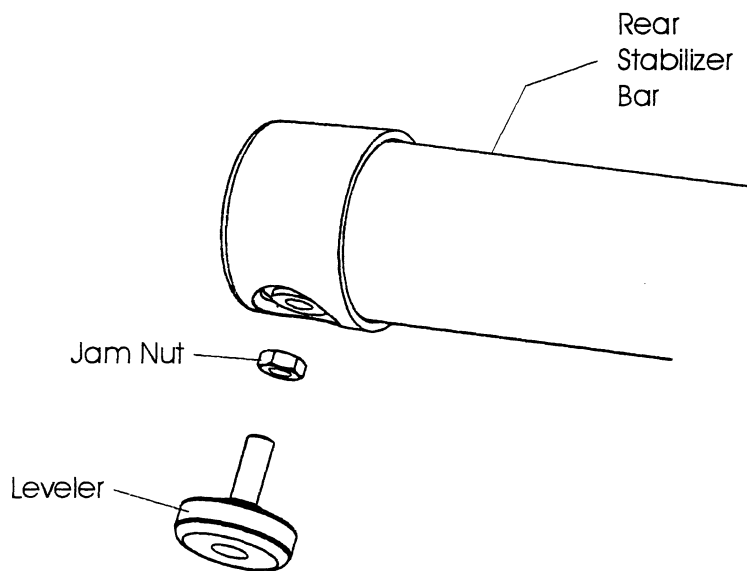
### How To... Replace and Adjust Levelers

**Special Service Tools: NONE**

---

Note: The levelers are located under the ends of the rear stabilizer bar. It is very important that the unit be properly leveled before using.

1. Remove the leveler assembly by first loosening the jam nut.
2. Turn the leveler assembly counterclockwise to remove it from the rear stabilizer bar.
3. Install the new leveler, with jam nut, in the reverse order.
4. Adjust the levelers by loosening the jam nut, then turn each leveler clockwise, to move it into the stabilizer, or counterclockwise, to move it out of the stabilizer. Do this for both levelers until the unit is stable and level.

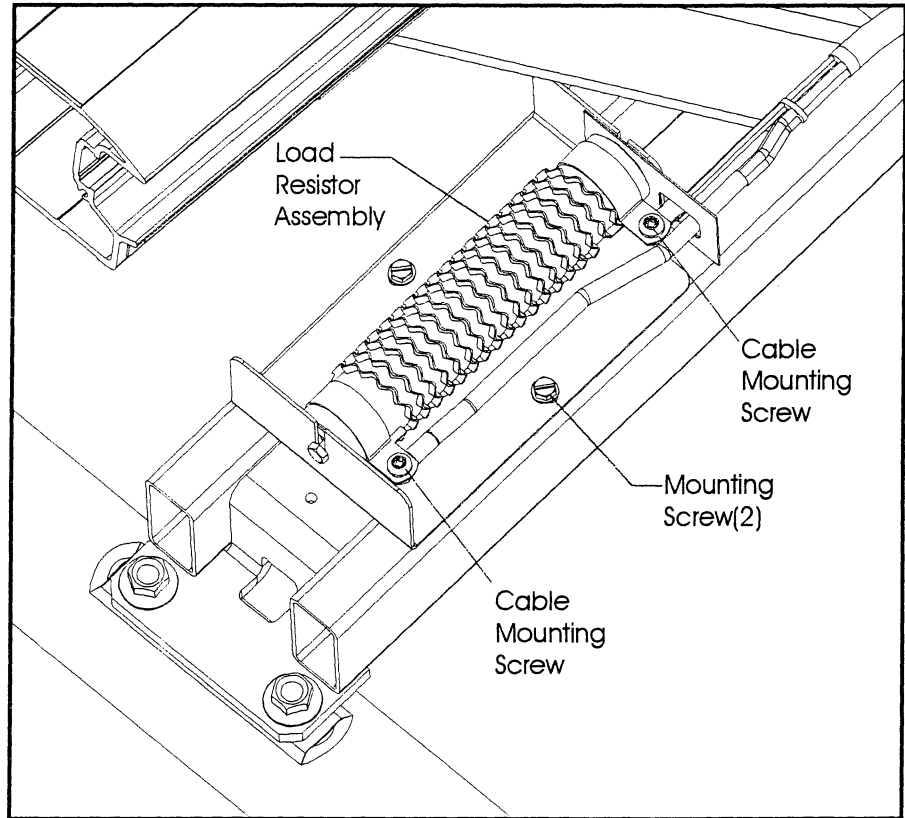


## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

### How To... Replace the Resistor Assembly

**Special Service Tools: NONE**

1. Remove the side shrouds. See "How To..." in this section.
2. Remove two cable mounting screws, and then lift off the cables from the resistor.
3. Remove mounting screws securing the resistor assembly to the frame, and then lift out the resistor assembly from the frame.
4. Install new resistor in reverse order.

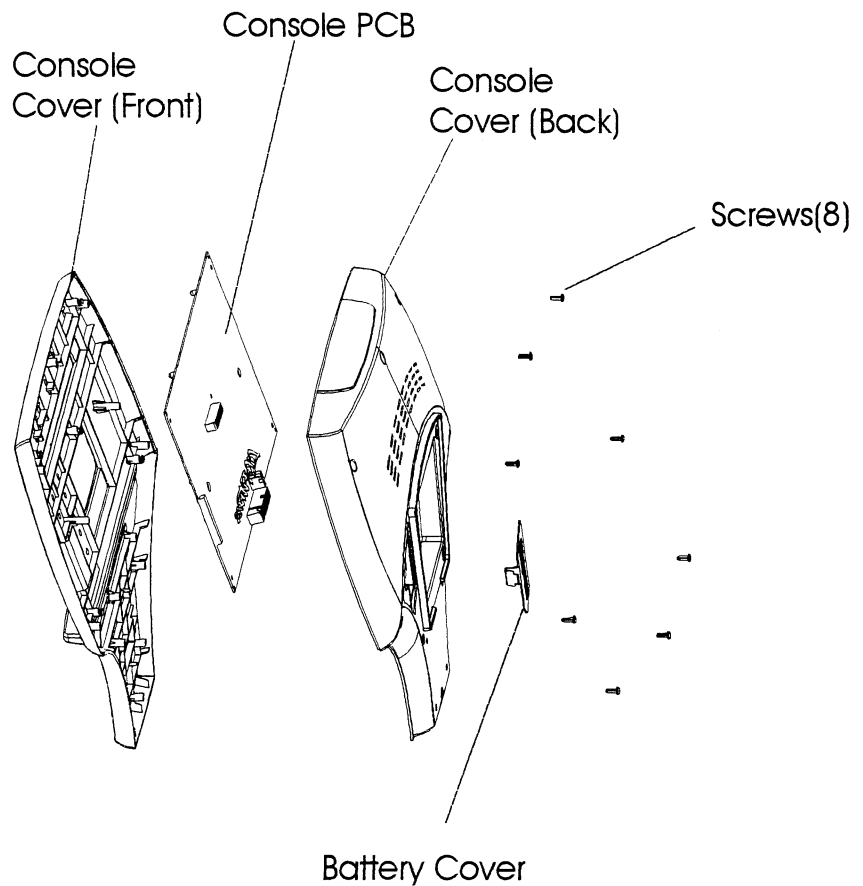


## Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes How To... Replace the Console Circuit Board

Special Service Tools: NONE

---

1. Remove the battery cover and battery.
2. Remove the four screws from under the console support.
3. Lift the console up just enough to disconnect the main cable and heart rate cable (if equipped).
4. Remove eight screws from the back of the console and split the halves.
5. Remove the screws securing the console circuit board to the front half of the console, and then remove the console circuit board.
6. Install new circuit board in reverse order of removal.



***Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes***

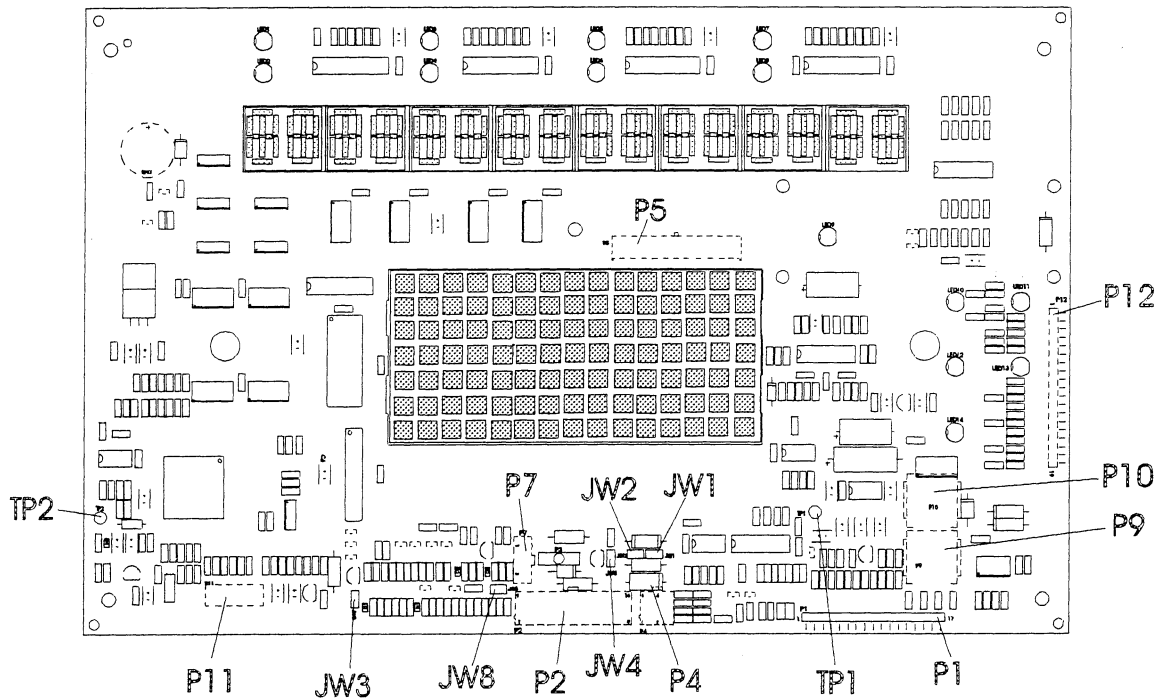
**NOTES:**

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**SECTION IV**

**ELECTRONICS  
AND  
WIRING DIAGRAMS**

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**DISPLAY CONSOLE BOARD - Model LC95R**



**Functional Description**




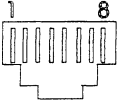
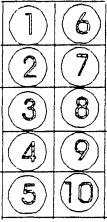
The Display Console Board is designed to work in conjunction with the Alternator Control Board. It reads the keypad input for changes or updates by the user, and refreshes the status LEDs, data display, and profile display matrix.

**Connector and Pin Descriptions**

Connector	Location	Pin	Functional Description
P1 and P12 is a 17 pin ribbon connector that connects to the switch membrane.		1	Ground
		2	Strobe
		3	Return
		4	Strobe
		5	Strobe
		6	Return
		7	Strobe
		8	Return
		9	Strobe
		10	Return
		11	Ground
		12	Strobe
		13	Strobe
		14	Return
		15	Strobe
		16	Return
		17	Ground

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
DISPLAY CONSOLE BOARD - Model LC95R**

**Connector and Pin Descriptions**

Connector	Location	Pin	Functional Description
P2 is a 16 pin connector that connects to the alternator control board.		1	N.C.
		2	GND (NOT USED)
		3	VSYS (NOT USED)
		4	VBAT (NOT USED)
		5	RPM REED (NOT USED)
		6	RPM ALT
		7	ASTART (NOT USED)
		8	VALT. (NOT USED)
		9	RELAY (NOT USED)
		10	GND
		11	GND
		12	VBAT
		13	FIELD-KICK
		14	FIELD
		15	LOAD-CMD
		16	VSYS
P4 is 4 pin connector that connects to the heart rate sensor.			LEFT +
			LEFT -
			RIGHT -
			RIGHT +
P7 is a 3 pin connector that connects to the polar signal.		1	+VCC (5VDC)
		2	POLAR SIGNAL
		3	GROUND
P9 and P10 are 8 pin connectors that connect to the CSAFE and Cardio Theater or broadcast vision interface.		1	N/U - not used
		2	N/U - not used
		3	Receive Data
		4	Transmit Data
		5	+8 Vdc
		6	CTS
		7	Ground
		8	N/U - not used
P11 is a 10 pin connector that connects to the background debug mode signals.		1	/DS
		2	/BERR
		3	Ground
		4	/BKPT /DSCLK
		5	Ground
		6	FREEZE/QUOT
		7	/RESET
		8	IPIPE1/DS1
		9	+5 Vdc
		10	IPIPE0/DS0

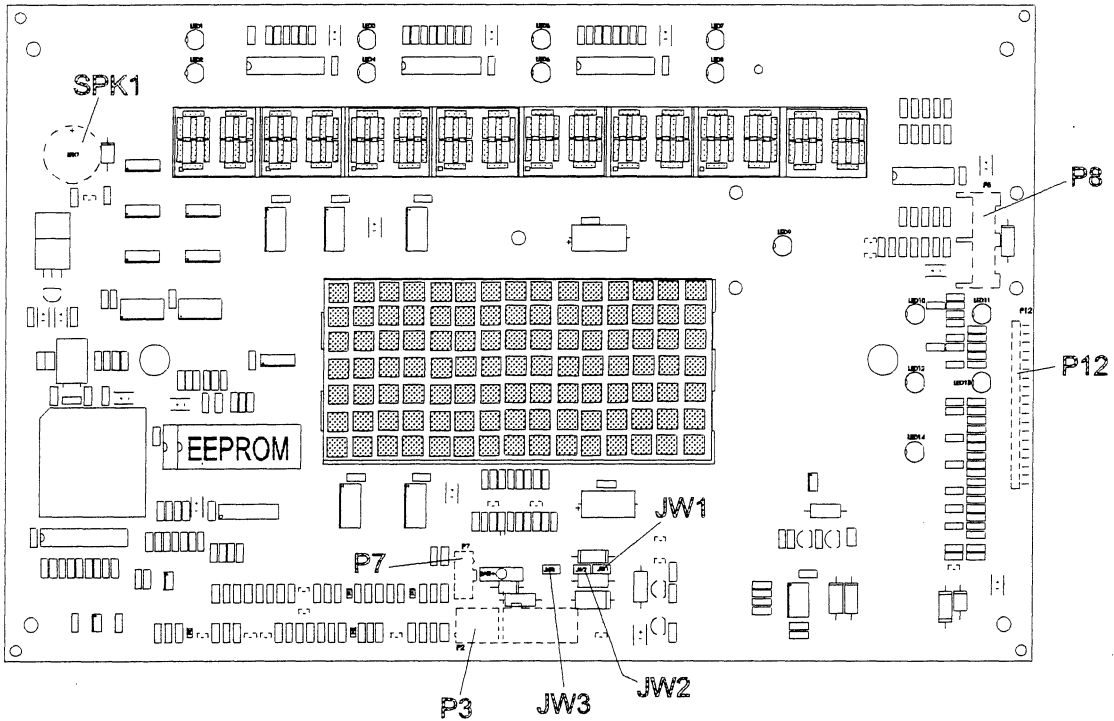
**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
 DISPLAY CONSOLE BOARD - Model LC95R**

**Connector and Pin Descriptions**

Connector	Location	Pin	Functional Description																								
P5 is a 24 pin connector that connects to the lower console display board.	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td style="border: none;">13</td><td style="border: none;">14</td><td style="border: none;">15</td><td style="border: none;">16</td><td style="border: none;">17</td><td style="border: none;">18</td><td style="border: none;">19</td><td style="border: none;">20</td><td style="border: none;">21</td><td style="border: none;">22</td><td style="border: none;">23</td><td style="border: none;">24</td> </tr> <tr> <td style="border: none;">12</td><td style="border: none;">11</td><td style="border: none;">10</td><td style="border: none;">9</td><td style="border: none;">8</td><td style="border: none;">7</td><td style="border: none;">6</td><td style="border: none;">5</td><td style="border: none;">4</td><td style="border: none;">3</td><td style="border: none;">2</td><td style="border: none;">1</td> </tr> </table>	13	14	15	16	17	18	19	20	21	22	23	24	12	11	10	9	8	7	6	5	4	3	2	1	1	
		13	14	15	16	17	18	19	20	21	22	23	24														
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**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**DISPLAY CONSOLE BOARD - Model LC91R**



**Functional Description**

The Display Console Board is designed to work in conjunction with the Alternator Control Board. It reads the keypad input for changes or updates by the user, and refreshes the status LEDs, data display, and profile display matrix.

**Connector and Pin Descriptions**

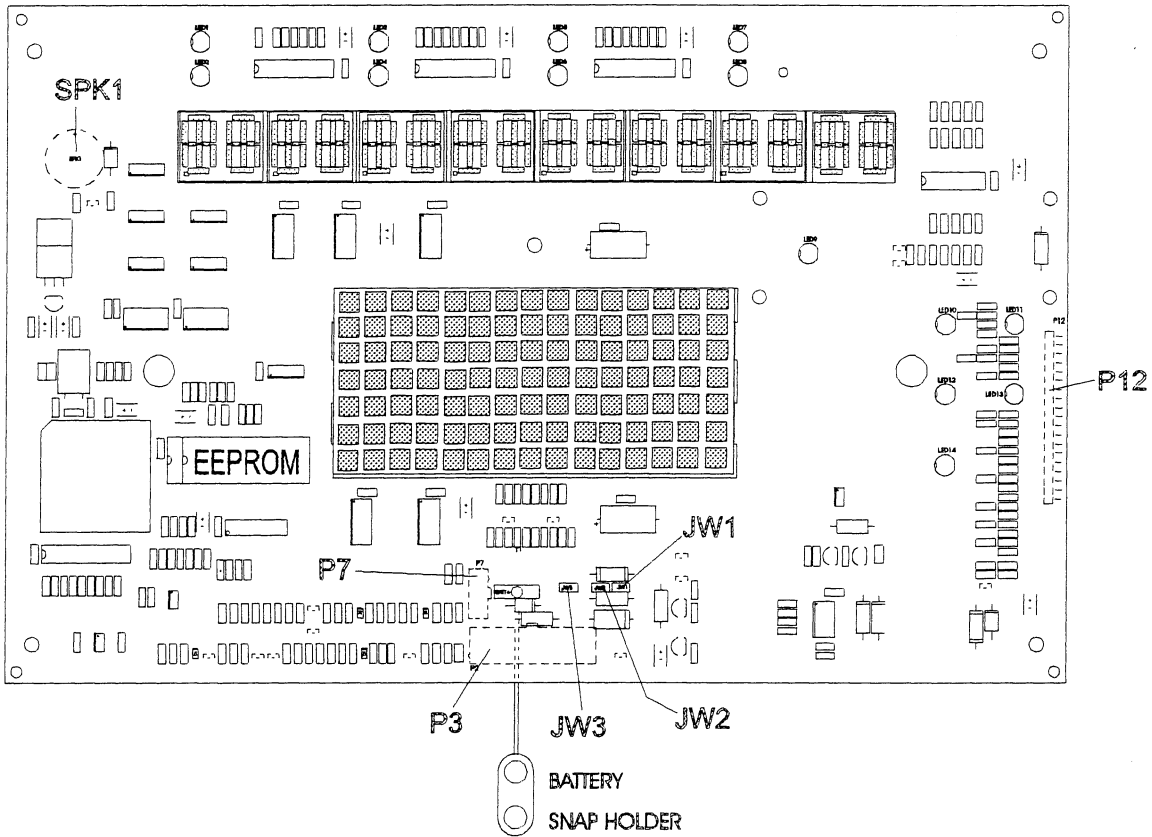
Connector	Location	Pin	Functional Description
P12 is a 17 pin ribbon connector that connects to the switch membrane.		1	Ground
		2	Strobe
		3	Return
		4	Strobe
		5	Strobe
		6	Return
		7	Strobe
		8	Return
		9	Strobe
		10	Return
		11	Ground
		12	Strobe
		13	Strobe
		14	Return
		15	Strobe
		16	Return
		17	Ground

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
DISPLAY CONSOLE BOARD - Model LC91R**

**Connector and Pin Descriptions**

Connector	Location	Pin	Functional Description
P2 is a 16 pin connect that connects to the alternator control board.		1	N.C.
		2	GND (NOT USED)
		3	VSYS (NOT USED)
		4	VBAT (NOT USED)
		5	RPM REED (NOT USED)
		6	RPM ALT
		7	ASTART (NOT USED)
		8	VALT. (NOT USED)
		9	RELAY (NOT USED)
		10	GND
		11	GND
		12	VBAT
		13	FIELD-KICK
		14	FIELD
		15	LOAD-CMD
		16	VSYS
P7 is a 3 pin connector that connects to the polar signal.		1	+VCC (5VDC)
		2	POLAR SIGNAL
		3	GROUND
P8 is an 7 pin connector that connects to the CSAFE card.		1	GND
		2	LEU
		3	TDO
		4	RDI
		5	CTS
		6	VCC
		7	V CARDIO

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**DISPLAY CONSOLE BOARD - Model LC85R and R7**



**Functional Description**

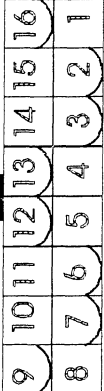

The Display Console Board is designed to work in conjunction with the Alternator Control Board. It reads the keypad input for changes or updates by the user, and refreshes the status LEDs, data display, and profile display matrix.

**Connector and Pin Descriptions**

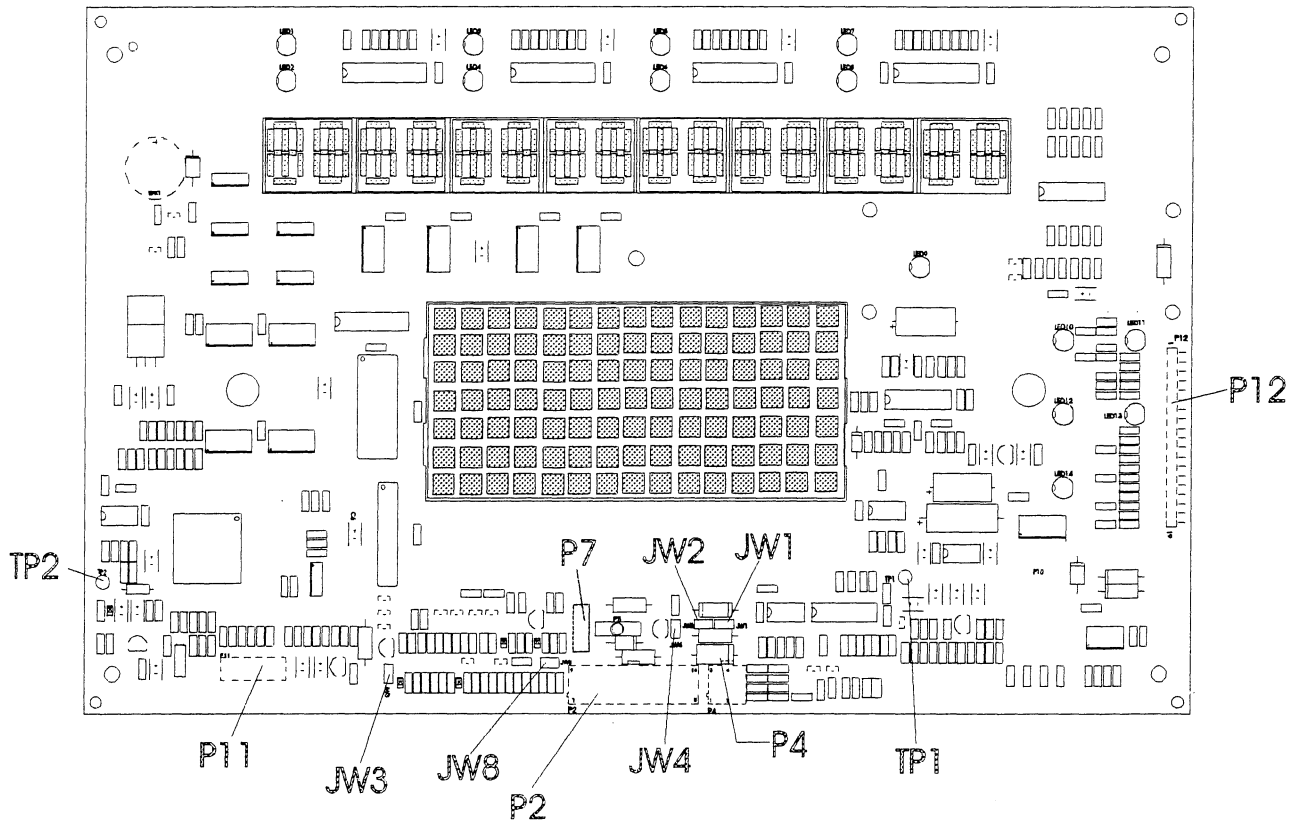
Connector	Location	Pin	Functional Description
P12 is a 17 pin ribbon connector that connects to the switch membrane.		1	Ground
		2	Strobe
		3	Return
		4	Strobe
		5	Strobe
		6	Return
		7	Strobe
		8	Return
		9	Strobe
		10	Return
		11	Ground
		12	Strobe
		13	Strobe
		14	Return
		15	Strobe
		16	Return
		17	Ground

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
DISPLAY CONSOLE BOARD - Model LC85R and R7**

**Connector and Pin Descriptions**

Connector	Location	Pin	Functional Description
P2 is a 16 pin connector that connects to the alternator control board.		1	N.C.
		2	GND (NOT USED)
		3	VSYN (NOT USED)
		4	VBAT (NOT USED)
		5	RPM REED (NOT USED)
		6	RPM ALT
		7	ASTART (NOT USED)
		8	VALT (NOT USED)
		9	RELAY (NOT USED)
		10	GND
		11	GND
		12	VBAT
		13	FIELD-KICK
		14	FIELD
		15	LOAD-CMD
		16	VSYN
P7 is a 3 pin connector that connects the polar connector.		1	+VCC (5VDC)
		2	POLAR SIGNAL
		3	GROUND

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**DISPLAY CONSOLE BOARD - Model R9**



**Functional Description**

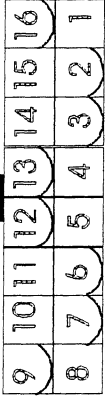

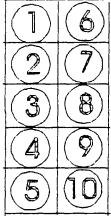

The Display Console Board is designed to work in conjunction with the Alternator Control Board. It reads the keypad input for changes or updates by the user, and refreshes the status LEDs, data display, and profile display matrix.

**Connectors and Pin Descriptions**

Connector	Location	Pin	Functional Description
P12 is a 17 pin ribbon connector that connects to the overlay board.		1	Ground
		2	Strobe
		3	Return
		4	Strobe
		5	Strobe
		6	Return
		7	Strobe
		8	Return
		9	Strobe
		10	Return
		11	Ground
		12	Strobe
		13	Strobe
		14	Return
		15	Strobe
		16	Return
		17	Ground

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes  
DISPLAY CONSOLE BOARD - Model R9**

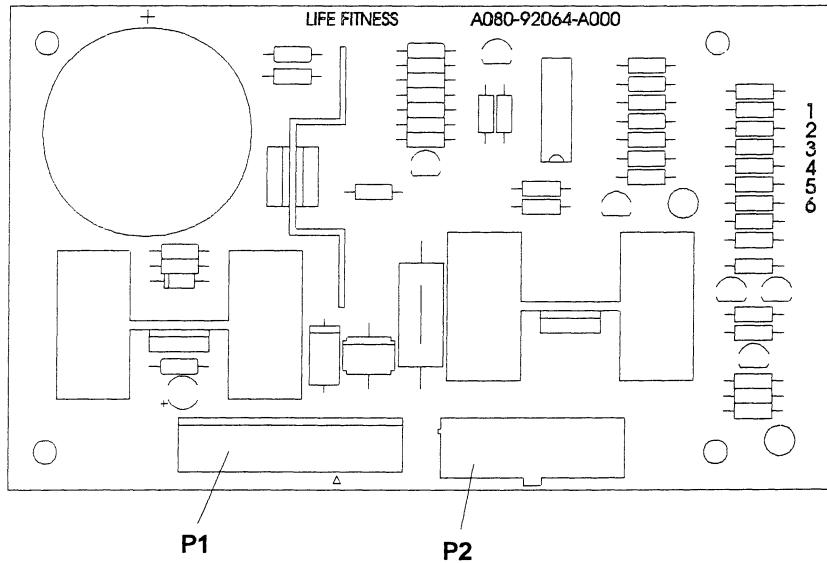
**Connector and Pin Descriptions**

Connector	Location	Pin	Functional Description
P2 is a 16 pin connector that connects to the alternator control board.		1	N.C.
		2	GND (NOT USED)
		3	VSYS (NOT USED)
		4	VBAT (NOT USED)
		5	RPM REED (NOT USED)
		6	RPM ALT
		7	ASTART (NOT USED)
		8	VALT. (NOT USED)
		9	RELAY (NOT USED)
		10	GND
		11	GND
		12	VBAT
		13	FIELD-KICK
		14	FIELD
		15	LOAD-CMD
		16	VSYS
P4 is a 4 pin connector that connects to the heart rate sensor.		1	Left +
		2	Left -
		3	Right -
		4	Right +
P11 is a 10 pin connector that connects to the background debug mode signals.		1	/DS
		2	/BERR
		3	Ground
		4	/BKPT /DSCLK
		5	Ground
		6	FREEZE/QUOT
		7	/RESET
		8	IPIPE1/DS1
		9	+5 Vdc
		10	IPIPE0/DS0
P7 is a 3 pin connector that connects to the polar signal.		1	+VCC (5VDC)
		2	POLAR SIGNAL
		3	GROUND

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**ALTERNATOR CONTROL BOARD - Model R7 and LC85R**

**Functional Description**

The Alternator Control Board is designed to regulate the alternator voltage by modulating the field current. It regulates the pass current (RPM signal) from the Alternator to the Console, and the pass current from the alternator to the load resistor while providing supply voltage for the console while charging the system battery.

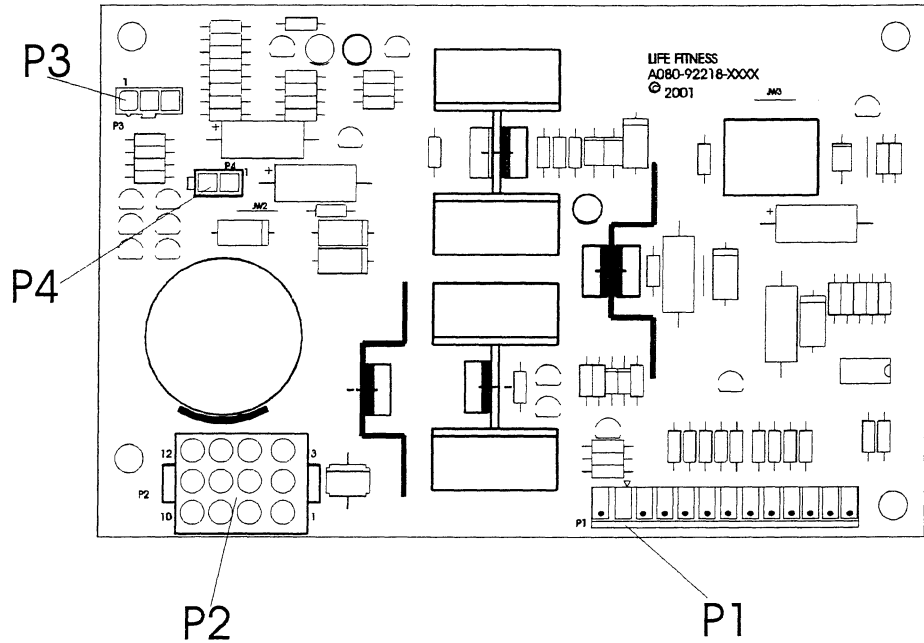


**Connector and Pin Connections**

Connector	Location	Pin	Functional Description
P1 is a Molex 9 pin connector that connects to the console.		1	RPM (0-7.5 VDC)
		2	VBAT (9VDC)
		3	NOT USED (BLANK)
		4	LOAD
		5	START
		6	GROUND
		7	GROUND
		8	ALTREGLO (9-11 VDC)
		9	VSYS (7-8 VDC)
P2 is a 14 pin connector that connects to the alternator and power resistor.		1	FLD RTN
		2	FIELD (1-4 VDC)
		3	VALT (10 VDC)
		4	LOAD
		5	LOAD
		6	GROUND
		7	GROUND
		8	RPM (0-7.5VDC)
		9	VALT
		10	LOAD
		11	LOAD
		12	GROUND
		13	GROUND
		14	GROUND

**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**ALTERNATOR CONTROL BOARD - Model R9, LC91R, and LC95R**

**Functional Description**  
 The Alternator Control Board is designed to regulate the alternator voltage by modulating the field current. It regulates the pass current (RPM signal) from the Alternator to the Console, and the pass current from the alternator to the load resistor while providing supply voltage for the console while charging the system battery.

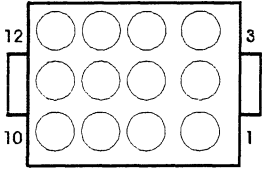
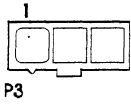
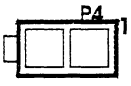


**Connector and Pin Connections**

Connector	Location	Pin	Functional Description
P1 is a Molex 11 pin connector that connects to the console.		1	GROUND - BLACK
		2	GROUND - BATTERY
		3	NOT USED (BLANK)
		4	VSYS (7-8VDC)
		5	ALTREGLO (9-11 VDC)
		6	LOADCMD
		7	RPM (0-7.5VDC)
		8	START (7-8VDC)
		9	VBAT - (6VDC)
		10	GROUND - BATTERY
		11	GROUND
P2 is a 12 pin connector that connects to the alternator and power resistor		1	GROUND - ALTERNATOR
		2	GROUND - ALTERNATOR
		3	GROUND - ALTERNATOR
		4	RPM (5VDC)
		5	GROUND - ALTERNATOR
		6	FIELD (1-4 VDC)
		7	LOAD
		8	LOAD
		9	LOAD
		10	VALT (10VDC)
		11	VALT (10VDC)
		12	LOAD



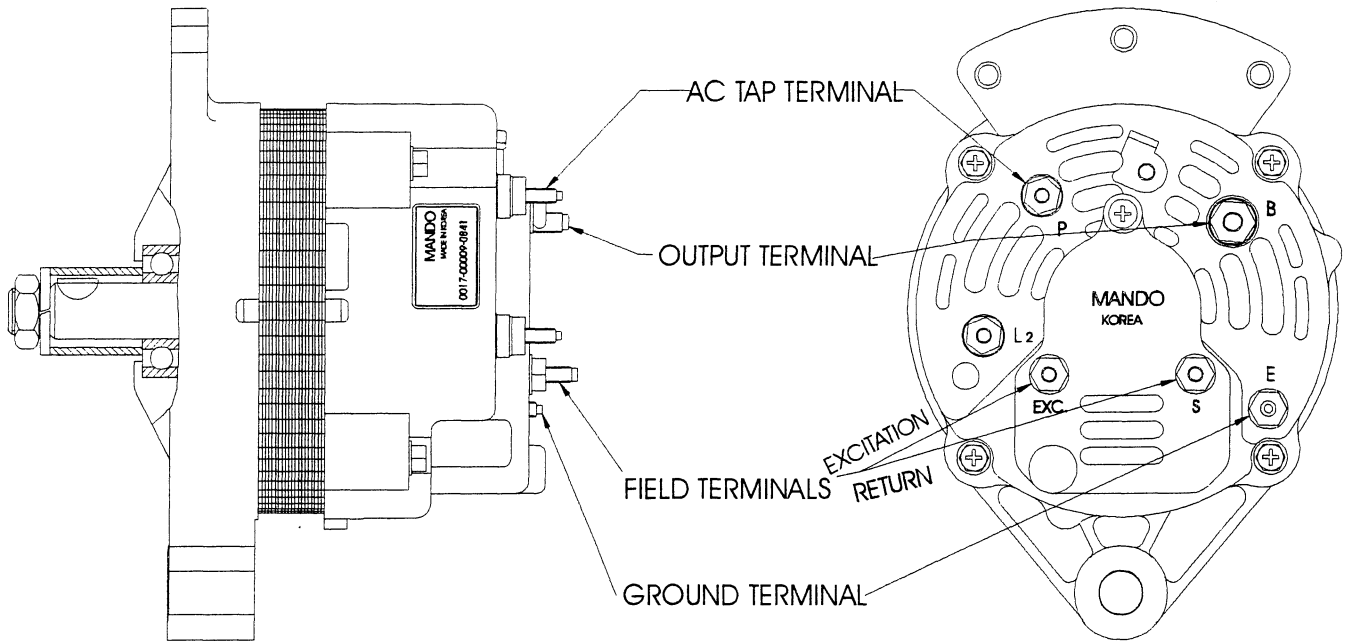
**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**ALTERNATOR CONTROL BOARD - Model R9, LC91R, and LC95R**

Connector	Location	Pin	Functional Description
P2 Connector is a 12 pin Molex connector that connects to the Alternator.		1	GND
		2	GND
		3	GND
		4	RPM-ALT
		5	GND
		6	FIELD
		7	VALTR
		8	VALTR
		9	VALTR
		10	VALT
		11	Valt OPEN
		12	VALTR
Connector	Location	Pin	Functional Description
P3 is a 3 pin connector that connect to the reed Switch		1	GND
		2	Vbat
		3	RPM-REED
Connector	Location	Pin	Functional Description
P4 is a 2 Pin connector that provides external power (LC95 only).		1	
		2	

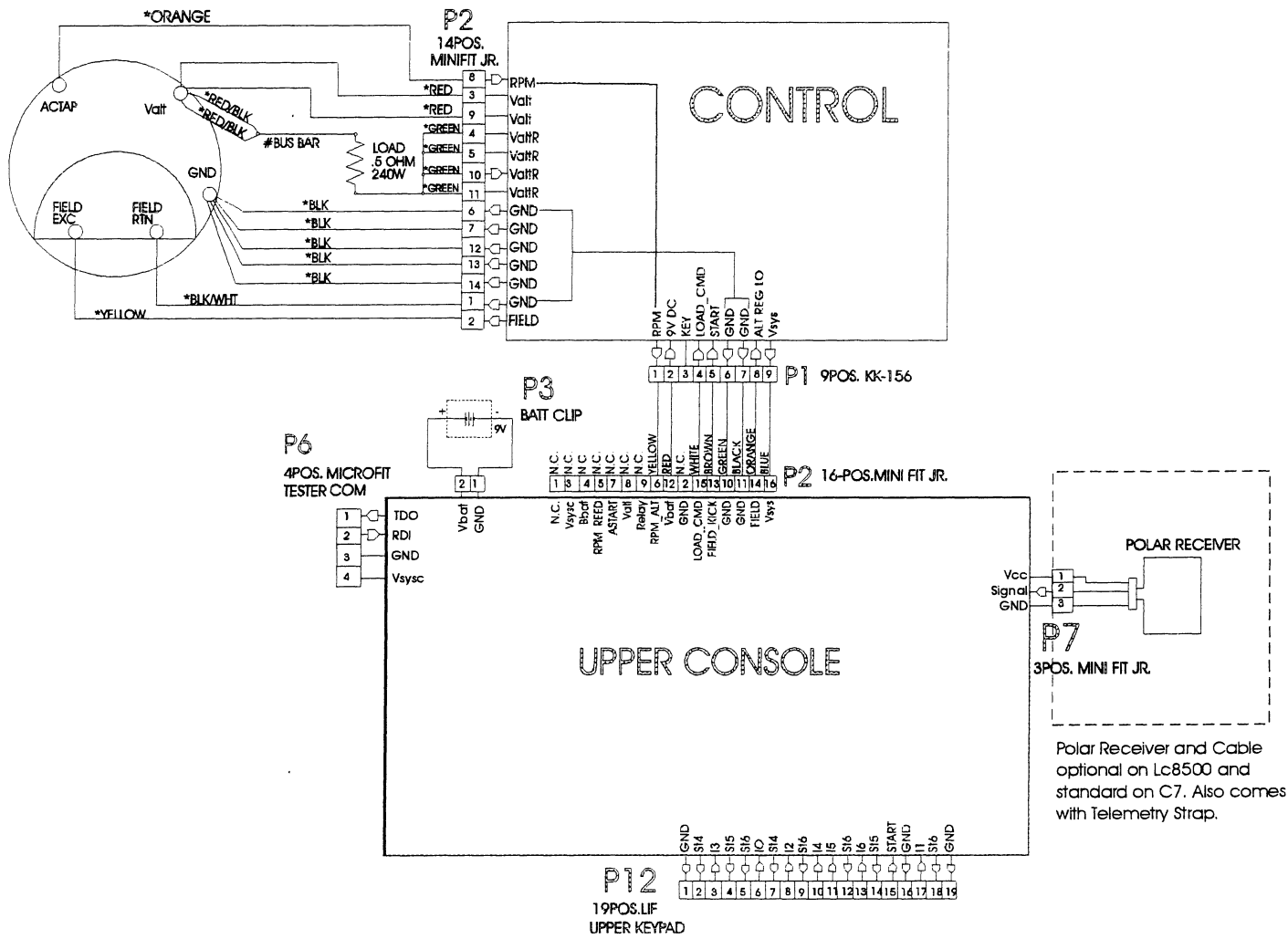
**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**ALTERNATOR**

**Functional Description**

The 12 volt, 35 amp Alternator is designed to provide electrical power to the product, supply load resistance while providing electrical power, and provide the RPM signal from the AC TAP to the Alternator Control Board.

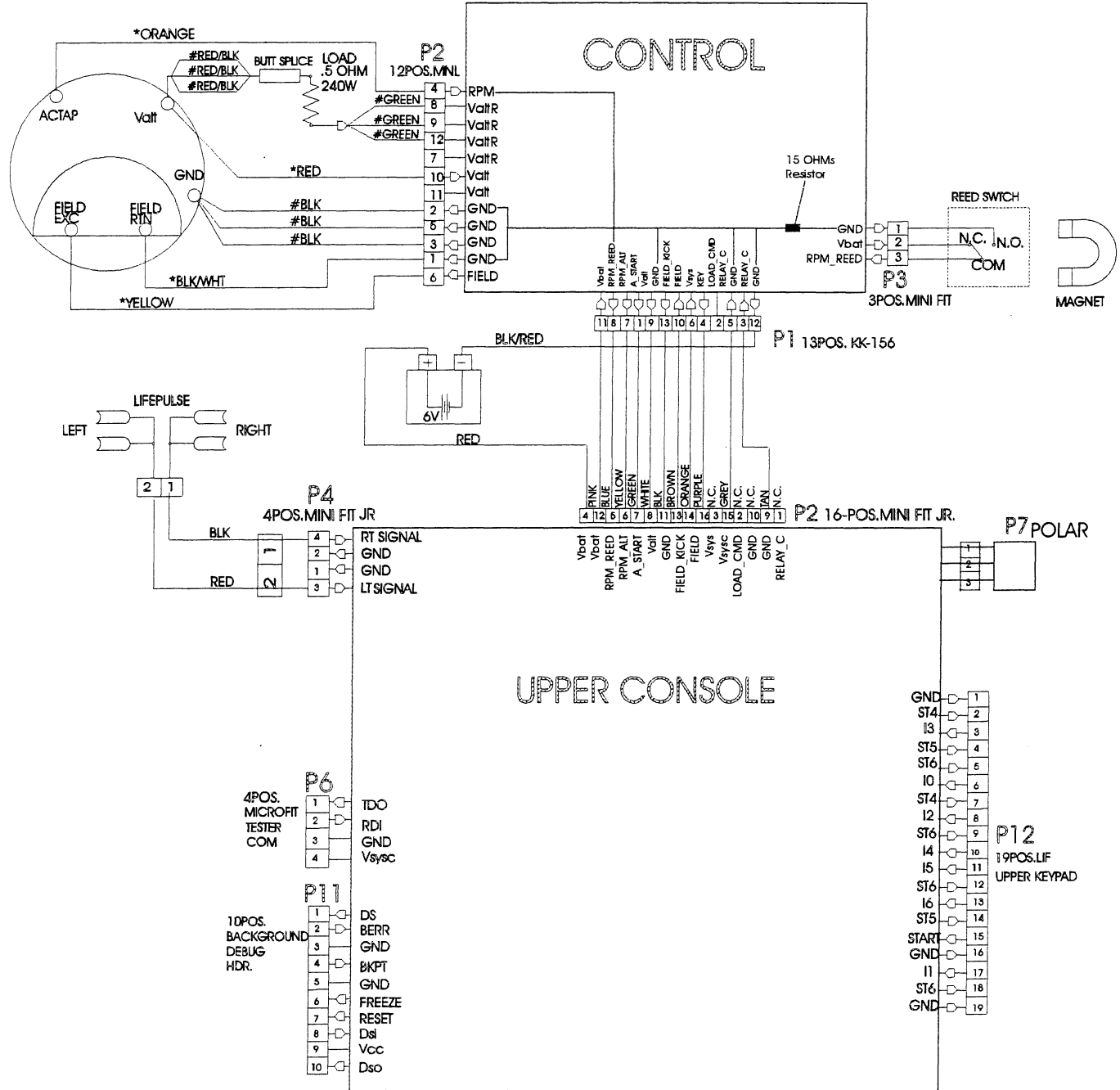


**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**  
**WIRING BLOCK DIAGRAM LC85R and R7**



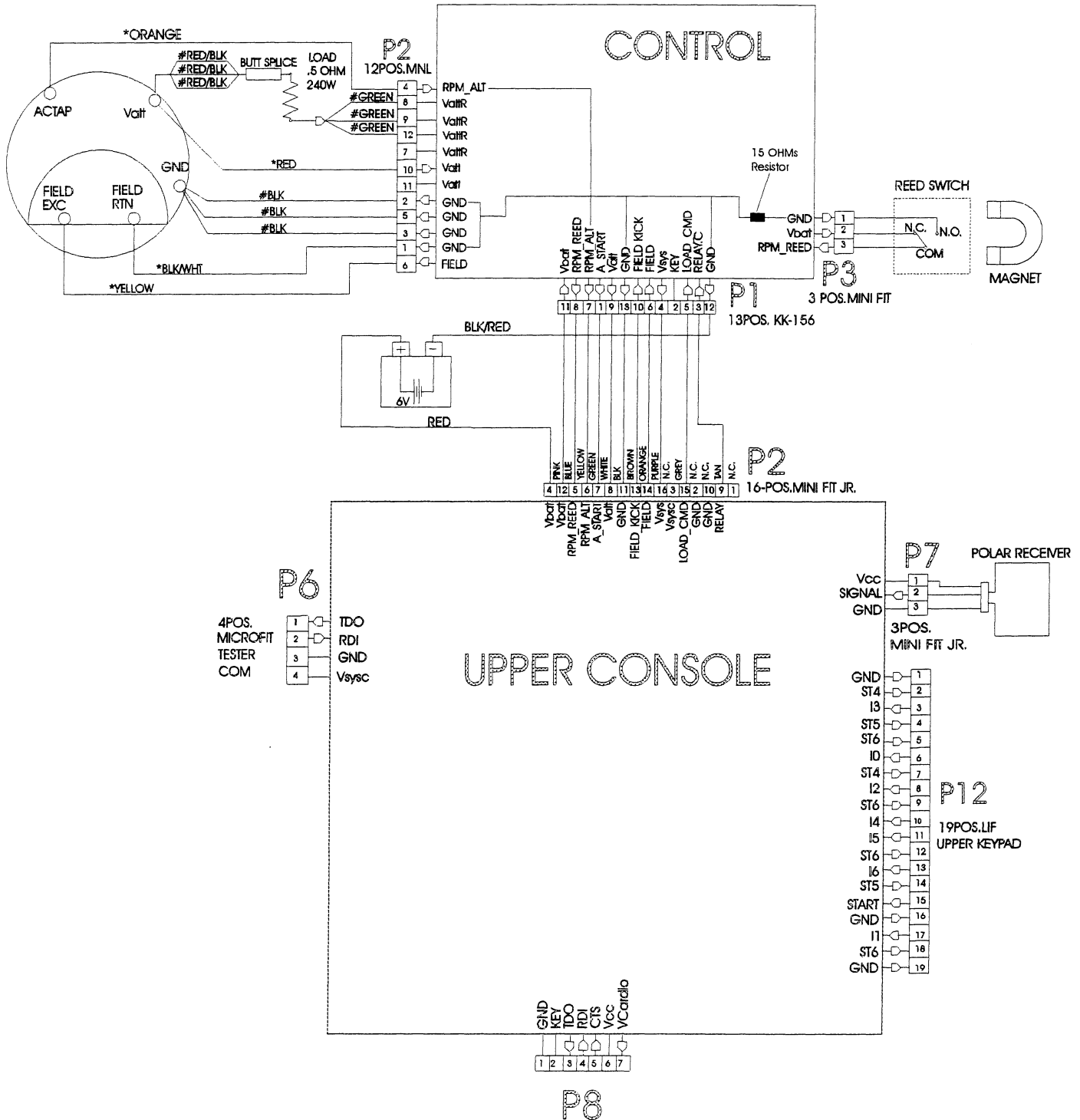
# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## WIRING BLOCK DIAGRAM R9



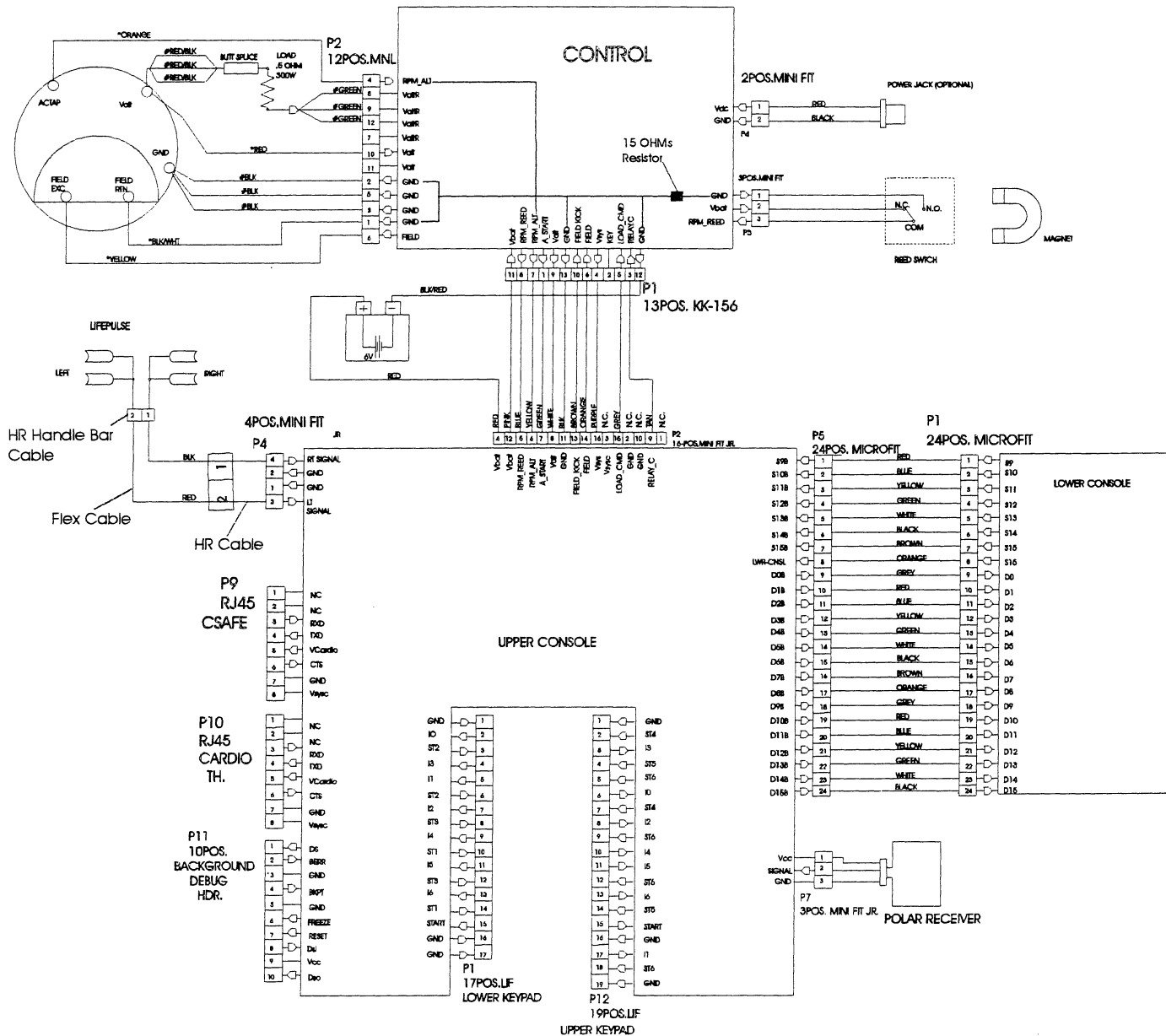
# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## WIRING BLOCK DIAGRAM LC91R



# Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes

## WIRING BLOCK DIAGRAM LC95R

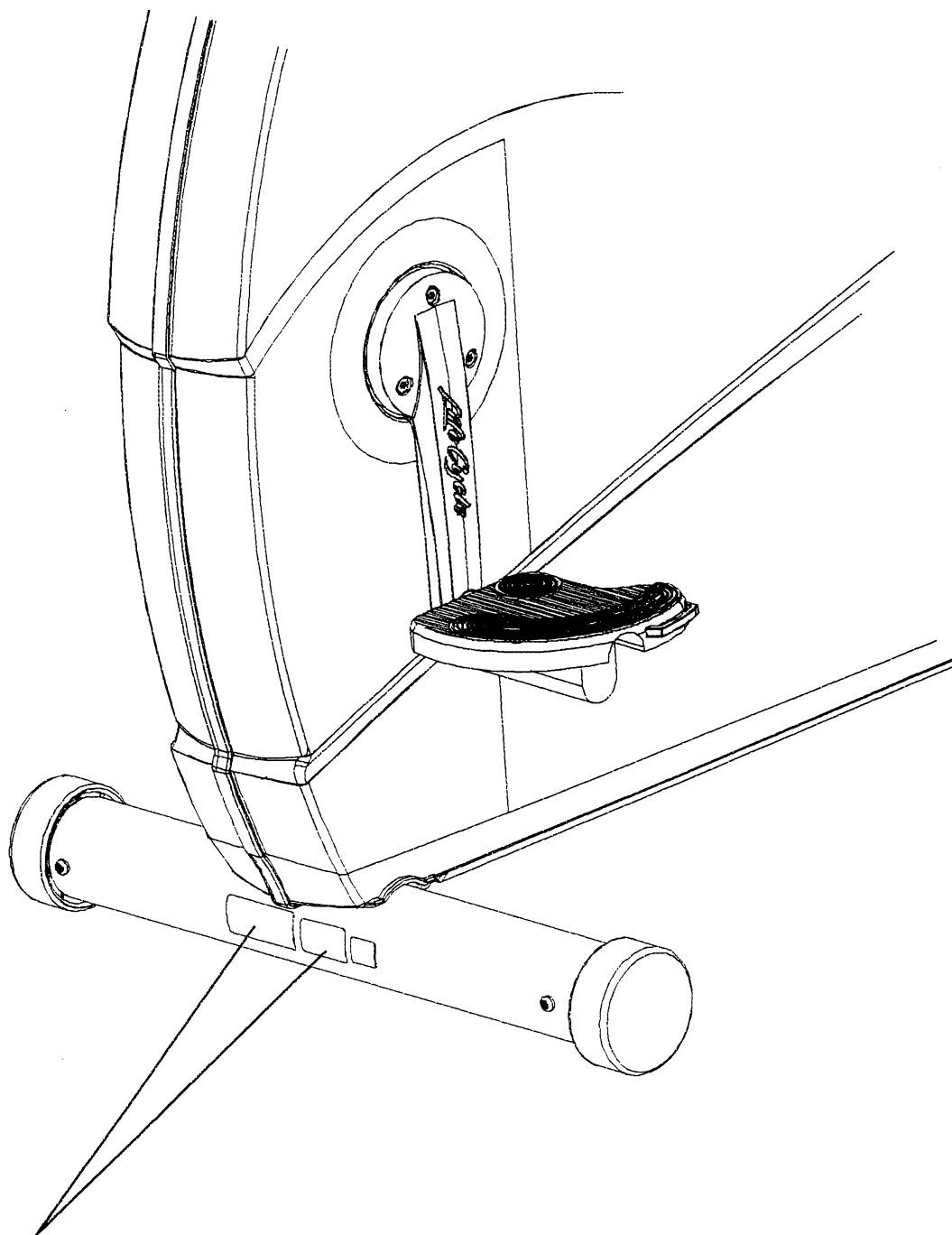


## **SECTION V**

# **MISCELLANEOUS**

**MODEL IDENTIFICATION and SERIAL NUMBER LOCATION**

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Model/Serial Number



**Lifecycle LC95R, LC91R, LC85R, R9, and R7 Recumbent Exercise Bikes**

**PREVENTIVE MAINTENANCE TIPS**

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**Preventive Maintenance Schedule**

	DAILY	MONTHLY	BI-ANNUALLY
<b>HOUSING</b>			
Inside			Clean
Outside	Clean		
<b>ALTERNATOR CONTROL</b>			
Heatsink			Clean
Connectors			Inspect
Board			Inspect
Crank Bearings			Inspect
Pedals		Clean/Inspect	
Freewheel Pulley			Clean/Inspect
Alternator Flywheel			Clean/Inspect
<b>SEAT ASSEMBLY</b>			
Top Surface	Clean		
Release Lever		Inspect	
<b>ALTERNATOR BELT</b>			
Tension			Inspect
Wear			Inspect
Lifepulse sensors	Clean		

# IMPORTANT SAFETY INSTRUCTIONS!

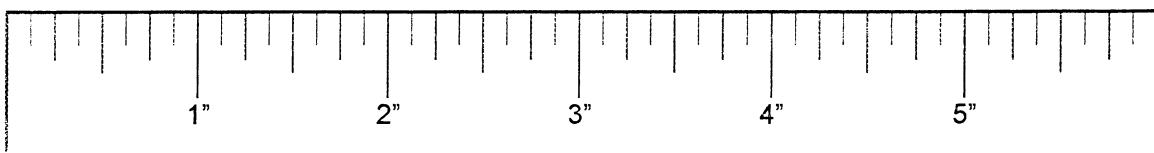
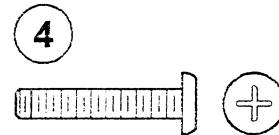
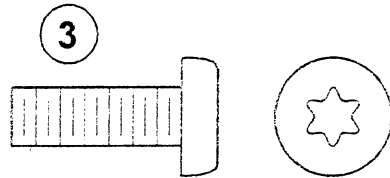
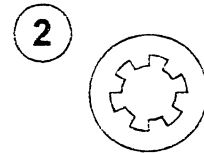
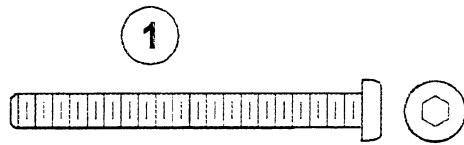
- ⇒ **DO NOT** locate the Recumbent Exercise Bike outdoors, near swimming pools, or in areas of high humidity.
- ⇒ **DO NOT** operate your Recumbent Exercise Bike if it has been dropped, damaged, or even partially immersed in water. Contact Life Fitness Customer Support Services at the number in the Operation Manual.
- ⇒ **DO NOT** locate the Recumbent Exercise Bike any closer than 30 inches (76 cm) to a television set.
- ⇒ **DO NOT** locate additional Recumbent Exercise Bike any closer than a minimum of 42 inches (107 cm) from center to center to avoid interference (cross talk) between Heart Rate monitors.
- ⇒ **DO** keep the area around your Recumbent Exercise Bike clear of any obstructions, including walls and furniture.
- ⇒ **DO** verify the contents of the delivery carton against the accompanying Parts Listing prior to setting the cartons and shipping material aside. If any parts are missing, contact Life Fitness Customer Support Services at the number listed in the Operation Manual. Save the shipping cartons in case of return.
- ⇒ **DO** read the entire Operation Manual prior to attempting to operate this machine as this is essential for proper use.

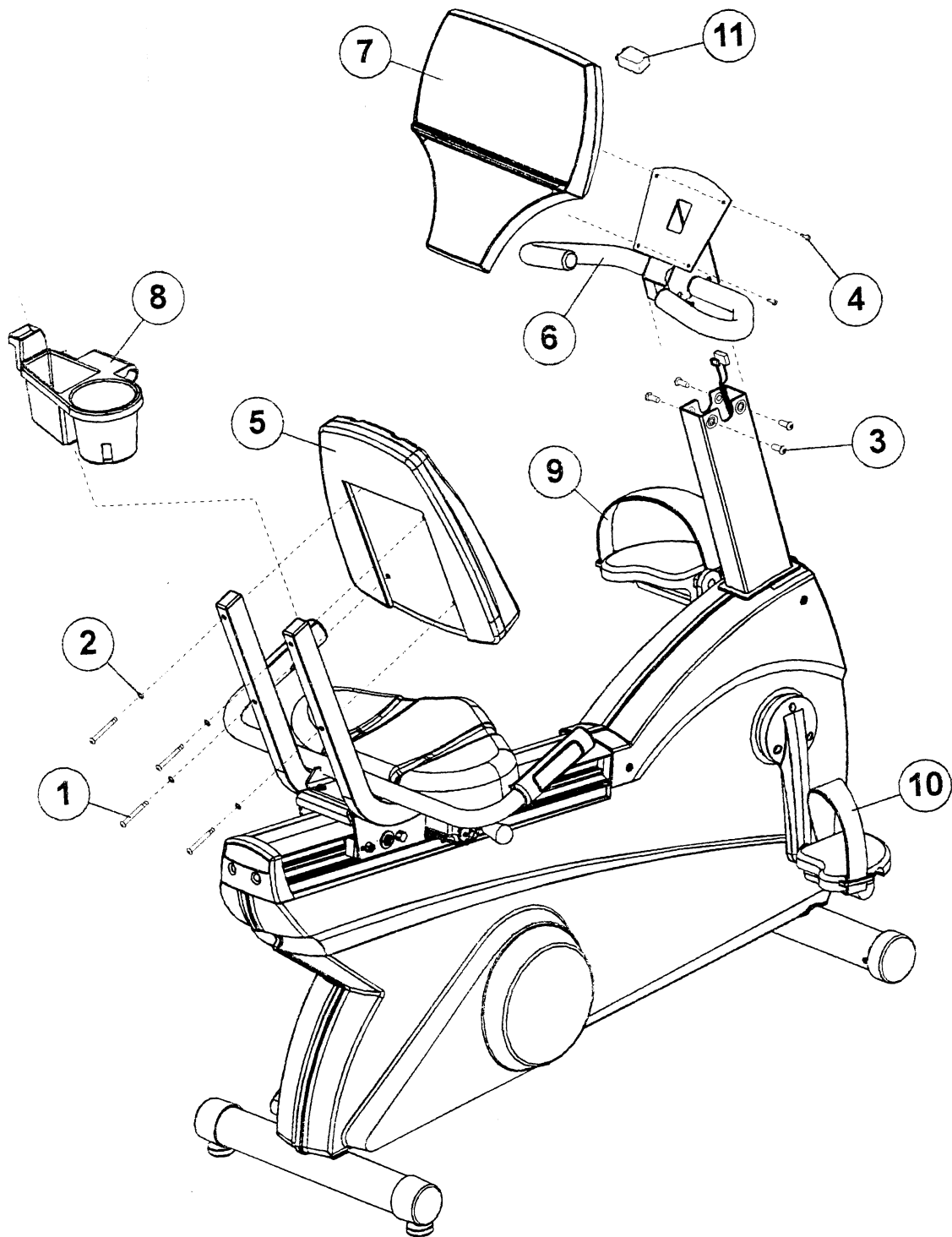
TOOLS REQUIRED FOR ASSEMBLY...Phillips screwdriver, 3/16" hex key wrench, T-40 Torx wrench

PARTS DESCRIPTION

1	Seat Back Screw 0017-00101-1131	Qty: 4
3	Console Support Assembly Bolt 0017-00101-1737	Qty: 4
5	Seat Back	Qty: 1
7	Display Console	Qty: 1
9	Left Pedal Strap	Qty: 1
11	9V Battery (Model 8500 Only) 0017-00003-0757	Qty: 1

2	Seat Back Washer 0017-00104-0253	Qty: 4
4	Console Screw 0017-00101-1253	Qty: 4
6	Console Support Assembly AK39-00003-0000	Qty: 1
8	Accessory Tray Assembly (If so equipped)	Qty: 1
10	Right Pedal Strap	Qty: 1





Slide the ACCESSORY TRAY (#8) (if so equipped) over the user right seat back post and down to make contact with the SEAT HANDLEBAR.

1. Position the underside clamp bracket (A) around the SEAT HANDLEBAR and tighten the two clamp SCREWS and WASHERS (B).

**NOTE: BE CAREFUL NOT TO OVER-TIGHTEN THE SCREWS.**

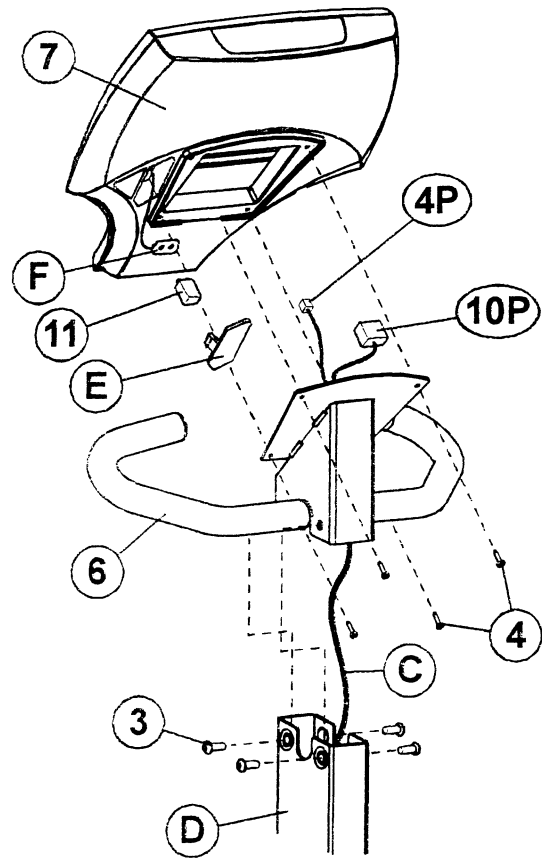
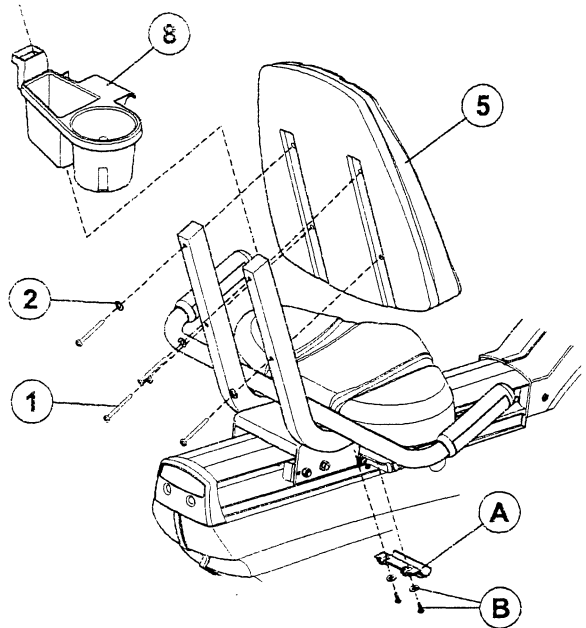
2. Align the four holes in the SEAT BACK (#5) with those in the SEAT BACK POSTS. Insert the four SCREWS (#1) and WASHERS (#2) through the backside of the SEAT BACK POSTS and into the SEAT BACK. Tighten the four SCREWS with a hex key wrench.

**NOTE: BE CAREFUL NOT TO OVER-TIGHTEN THE SCREWS.**

3. Unfold the CONSOLE WIRE HARNESSSES (C) from the POST extending from the FRAME.
4. Feed the WIRE HARNESSSES at the top of the FRAME POST through the bottom of the CONSOLE SUPPORT ASSEMBLY COLUMN. Continue pushing the WIRE HARNESSSES until the CONNECTORS at the end of the WIRE HARNESSSES exit through the opening at the top of the COLUMN. Gently pull the WIRE HARNESSSES to remove the slack.
5. Position the CONSOLE SUPPORT ASSEMBLY (#6) so that the HANDLEBAR is facing the user and slide the CONSOLE SUPPORT ASSEMBLY into the FRAME POST (D), being careful not to pinch the WIRES in the process. Align the holes in the top of the CONSOLE SUPPORT ASSEMBLY with those in the FRAME POST. Install the four CONSOLE SUPPORT ASSEMBLY BOLTS (#3) to secure it into position. Tighten the four CONSOLE SUPPORT ASSEMBLY BOLTS to 15-20 ft. lbs.

**NOTE: BE VERY CAREFUL NOT TO DAMAGE THE WIRES WHEN PASSING THE BOLTS THROUGH THE HOLES. TIGHTEN THE BOLTS SECURELY.**

6. Align the LOCKING TABS of the 10-PIN CONNECTOR and the 4-PIN CONNECTOR (Models 9500HR) and plug them together until they SNAP into place.
7. **Model 8500 Only**  
Remove the BATTERY DOOR (E) located on the back of the DISPLAY CONSOLE (#7). Carefully pull the BATTERY WIRE HARNESS (F) out of the BATTERY COMPARTMENT. Plug the BATTERY (#11) into the BATTERY WIRE HARNESS CONNECTOR. Carefully place the BATTERY and BATTERY WIRE HARNESS into the BATTERY COMPARTMENT. Replace the BATTERY DOOR.



8. Carefully feed the wires back into the top of the CONSOLE SUPPORT ASSEMBLY (#6) and attach the DISPLAY CONSOLE (#7) to the CONSOLE SUPPORT ASSEMBLY using the four CONSOLE SCREWS (#4) and a Phillips screwdriver. Tighten the four SCREWS in a criss-cross pattern.

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**NOTE: BE CAREFUL NOT TO OVERTIGHTEN THE SCREWS.**

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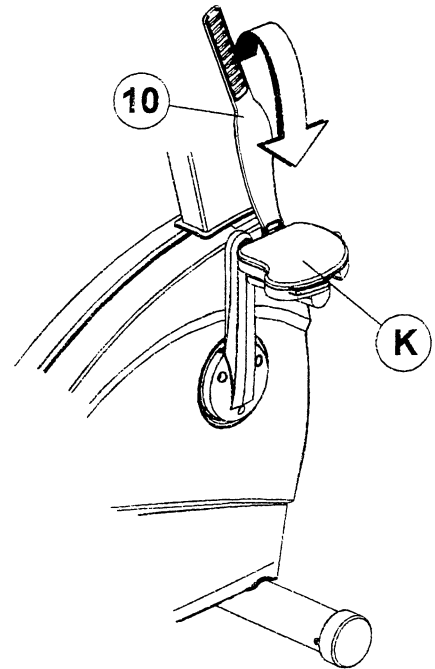
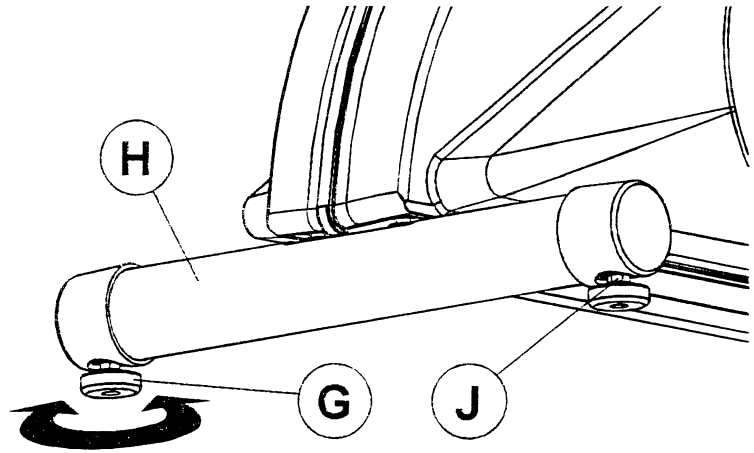
9. After placing the exercise bike in the intended location for use, check the stability of the bike. If the exercise bike is not level, turn a LEVELER (G) in the rear STABILIZER BAR (H) in either direction until the rocking motion is eliminated. Tighten the JAM NUT (J) when the exercise bike is level.

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**NOTE: ONLY ONE LEVELER NEEDS TO BE TURNED.**

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10. Locate the RIGHT PEDAL STRAP (#10) marked with an "R". Attach the RIGHT PEDAL STRAP to the RIGHT PEDAL (K) with the double slot on the inward pedal strap tab looping upward and attaching to the outward pedal strap tab. Repeat for the LEFT PEDAL STRAP (#9) marked with an "L"





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**M051-00K39-A012**

**September 2002**